Information Builders

WebFOCUS

WebFOCUS Managed Reporting
Development and Administration
Developer Studio Edition
Version 5 Release 2

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Preface

This documentation describes the administration tools in the WebFOCUS Managed Reporting Environment. It is intended as a reference for anyone who administers the Managed Reporting user's environment.

How This Document Is Organized

This manual includes the following chapters:

Chapter		Description
1	Introducing WebFOCUS	Describes Managed Reporting, ReportCaster, and Dashboard. Explains Managed Reporting concepts, Dashboard customization, and how to access and use Managed Reporting and Dashboard.
2	Creating Domains and Standard Reports	Describes how to create, edit, and view properties of Domains and Standard Reports. Also explains how to run and run defer Standard Reports and how to work with server and application path properties.
3	Creating Reporting Objects	Describes how to create and run Reporting Objects, which can contain different components: Others (procedures you code in the text editor), Joins, Defines, Filters, Where statements, Report templates, Graph templates, and Replications.
4	Publishing Reports	Describes how to use the Publish utility to create an HTML launch page for a report listed in the Standard Reports folder.
5	User Management	Describes how the User Management tree object is used to view all types of user's reports and to open, edit, run, save, and delete Managed Reporting user's reports.
6	Change Management	Describes features in Managed Reporting that can be used to facilitate change management, which is the process of moving application components between WebFOCUS environments.
7	ReportCaster Alerts Administration	Describes what an alert is and how to use the Alert Wizard.

Chapter		Description
8	Two-Way Email Administration	Describes how to create and maintain Two-Way Email templates.
9	PDA Sync Administration	Describes how to set up Standard Reports and users for sync access, and how to create report channels from the MRE Repository.

Documentation Conventions

The following conventions apply throughout this manual.

Convention	Description
`THIS TYPEFACE` or `this typeface`	Denotes syntax that you must enter exactly as shown.
`this typeface`	Represents a placeholder (or variable) in syntax for a value that you or the system must supply.
`underscore`	Indicates a default setting.
this typeface	Represents a placeholder (or variable) in a text paragraph, a cross-reference, or an important term. It may also Indicate a button, menu item, or dialog box option you can click or select.
this typeface	Highlights a file name or command in a text paragraph that must be lowercase.
Key + Key	Indicates keys that must be pressed simultaneously.
`{ }`	Indicates two choices from which you must choose one. You type one of these choices, not the braces.
`[ ]`	Indicates a group of optional parameters. None are required, but you may select one of them. Type only the information within the brackets, not the brackets.
`|`	Separates two mutually exclusive choices in a syntax line. You type one of these choices, not the symbol.
`...`	Indicates that you can enter a parameter multiple times. Type only the parameters, not the ellipsis points (…).
. . .	Indicates that there are (or could be) intervening or additional commands.

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Information You Should Have

To help our consultants answer your questions most effectively, be ready to provide the following information when you call:

- Your six-digit site code number (*xxxx.xx*).
- Your WebFOCUS configuration:
    - The front-end you are using, including vendor and release.
    - The communications protocol (for example, TCP/IP or HLLAPI), including vendor and release.
    - The software release.
    - The server you are accessing, including release (for example, 4.2.1).

- The stored procedure (preferably with line numbers) or FOCUS commands being used in server access.
- The name of the Master File and Access File.
- The exact nature of the problem:
    - Are the results or the format incorrect? Are the text or calculations missing or misplaced?
    - The error message and return code, if applicable.
    - Is this related to any other problem?
- Has the procedure or query ever worked in its present form? Has it been changed recently? How often does the problem occur?
- What release of the operating system are you using? Has it, WebFOCUS, your security system, communications protocol, or front-end software changed?
- Is this problem reproducible? If so, how?
- Have you tried to reproduce your problem in the simplest form possible? For example, if you are having problems joining two data sources, have you tried executing a query containing the code to access a single data source?
- Do you have a trace file?
- How is the problem affecting your business? Is it halting development or production? Do you just have questions about functionality or documentation?

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Thank you, in advance, for your comments.

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Contents

CHAPTER 1

Introducing WebFOCUS

Topics:

- WebFOCUS Products
- Using Managed Reporting
- Accessing Dashboard
- Customizing Dashboard

WebFOCUS is a complete, Web-ready, enterprise data access and reporting system, which takes advantage of the low-cost, low-maintenance, and wide distribution capabilities of the World Wide Web and internal corporate Web sites.

WebFOCUS enables application developers and Web designers to create powerful EIS and decision-support applications that deliver easy access to the information that users need, regardless of hardware platforms, data source structures, or application programs. Developers can create sophisticated Web pages that enable end users to view static reports, to run dynamic reports, and to create parameterized queries for individual requests.

The WebFOCUS Business Intelligence Dashboard is an HTML-based thin client that allows you to create a customized user interface for access to WebFOCUS Managed Reporting.

When you connect to Dashboard you are also connecting to WebFOCUS Managed Reporting, which means all of the Standard Reports and Reporting Objects that are available in Managed Reporting will also be available in Dashboard.

WebFOCUS Products

To develop Web-based reporting applications, WebFOCUS provides integrated Java-based development tools that are seamlessly integrated with the WebFOCUS server-side software components. WebFOCUS enables developers to prototype, test, and deploy Web-based reporting applications quickly, without requiring knowledge of HTML, Web server administration, or the FOCUS 4GL reporting language. WebFOCUS offers the following application development and deployment tools:

- Managed Reporting
- ReportCaster
- Business Intelligence Dashboard

Managed Reporting

Managed Reporting provides a streamlined reporting environment that virtually eliminates the complexities of today's corporate data. Managed Reporting Administrators can use the Managed Reporting Administrator's Environment to develop the users' Managed Reporting environment, including Standard Reports and Reporting Objects. With the User Administrator tool available from the Managed Reporting browser or Developer Studio environments, Administrators can manage access to Managed Reporting domains by granting authorized users access to the information they need, while restricting unauthorized users from sensitive or confidential corporate data.

Users of Managed Reporting can create and save reports that meet their individual business needs without knowing the details and complexities of the underlying data source or of the FOCUS reporting language. Managed Reporting ensures that users can access the information they require, while protecting sensitive or confidential data.

ReportCaster

ReportCaster is an optional Java-based tool that provides a single point of management for report scheduling and distribution via the Web, e-mail, Managed Reporting, or a printer. ReportCaster enables you to provide essential, updated information directly to the people that need it, on time, automatically.

You can access ReportCaster by clicking the *ReportCaster* icon on the toolbar in Managed Reporting. All ReportCaster functions are available from your reporting environment, including:

- Scheduling reports to be run once or repeatedly.
- Bursting reports to send specific values in a report to different users, files, or printers.
- Distributing report output via e-mail, FTP, printer, or Managed Reporting.
- Maintaining scheduled jobs, the address book of distribution lists, and log files.

For more information about ReportCaster, see the *WebFOCUS ReportCaster Development and Administrator's* manual.

Business Intelligence Dashboard

The WebFOCUS Business Intelligence Dashboard allows you to create a customized user interface for access to WebFOCUS Managed Reporting.

From Dashboard you can:

- Customize the look of the WebFOCUS environment.
- Create personalized content blocks that can contain launched reports, links to reports, and links to Internet resources.
- Search domains available in the WebFOCUS environment.
- Create and manage public views.
- Dynamically access non-WebFOCUS documents.
- View the status of deferred reports.
- Access reporting tools such as Report Assistant, Graph Assistant, and ReportCaster.

Managed Reporting Concepts

Managed Reporting Administrators create and manage user environments. Managed Reporting Domain Admins develop content for users. Managed Reporting users can run Standard Reports, defined in advance by a Managed Reporting Administrator or a Domain Admin. In addition, Managed Reporting users can create and save reports that meet their individual business needs without knowing the details and complexities of the underlying data source or of the FOCUS reporting language.

To organize the Standard Reports and Reporting Objects available to users, Managed Reporting Administrators create a series of domains, using the Managed Reporting Domain Builder. Organizing Standard Reports and Reporting Objects by domains ensures that users can access the information they require, while protecting sensitive or confidential data.

Managed Reporting Capabilities

As a Managed Reporting Administrator or Domain Admin, you create the Standard Reports that users run, as well as publish the HTML launch pages used to call reports that require parameters. In addition, you can perform the following:

- **Create access rights to Managed Reporting.** To enable a user to access Managed Reporting, you must create a user account for every user and specify the groups every user is a member of. You also specify which reporting domains belong to each group. User accounts and groups are created with the User Administration Tool.

- **Create and access the metadata for data sources.** To create a report that accesses a data source, you must first create and access the metadata for that data source. Metadata is information about the structure of the data itself, such as the columns or fields in the data source, their format, or the location of the data sources.

  You create and manage metadata from the Data Server feature in Domain Builder. You can enhance this metadata with additional descriptive information like the business context of a particular field.

- **Build the reports that retrieve and format data.** Using Managed Reporting, you can build, test, and deploy sophisticated tabular reports and graphs, without knowing the FOCUS reporting language. In addition to creating new report procedures, you can move existing procedures from the WebFOCUS Reporting Server to the WebFOCUS Managed Reporting Repository in order to modify or enhance them.

- **Create Reporting Objects for users.** Managed Reporting lets you create Reporting Objects for Managed Reporting and Dashboard users. Reporting Objects are representations of data sources, which present the available data using terms and formats meaningful to the user. Using predefined Reporting Objects, Managed Reporting users build and save their own reports without having to know the details and complexities of the underlying data sources.

- **Create OLAP-enabled reports.** Managed Reporting enables you to update metadata files to make them OLAP-enabled as well as to create OLAP-enabled Standard Reports and Reporting Objects for your users. Users can run OLAP-enabled reports and use the OLAP selections panel or the OLAP Control Panel to manipulate the reports in order to view different representations of the data, without modifying the actual Standard Report or Reporting Object. See the *WebFOCUS Managed Reporting End User's Manual* for more information.

- **Publish HTML launch pages for the reports.** After you create and test your reports, you can use Managed Reporting to publish the report to the Web. When you publish a report, you create a *launch page*, a complete HTML file that calls the report procedure. You can create an HTML launch page for any report stored using Managed Reporting. These launch pages can be published back to the domains environment or outside of the Managed Reporting environment where they can be incorporated into a self-service application.

  You can customize launch pages by editing the HTML file to add additional HTML tags and syntax. For example, the HTML launch page can include image files (GIF or JPG files), tables, frames, JavaScript™ functions, and hypertext links to other Web pages. In addition, the launch pages that you create can be accessed via HTML hyperlinks from other Web pages.

- **Schedule reports.** Managed Reporting provides access to ReportCaster, where you can schedule and distribute Standard Reports. ReportCaster enables you to provide essential, updated information directly to the people that need it, on time, automatically. For information about scheduling and distributing report output with Managed Reporting, see the *ReportCaster Development and Administration Manual*.
- **Distribute reports when certain test conditions are met using ReportCaster Alerts.** A ReportCaster Alert sends notification to a user whenever a specified event takes place within a data source. This allows the user to remain in constant communication with a data source from any location. You are able to create test conditions (rules) and specify how often you would like these rules or events to be checked against a data source. ReportCaster can then generate a report or sections of that report (burst option) as a result of the alert.

  ReportCaster Alerts work with all e-mail clients, including the following mobile devices: Palm OS®, Pocket PC, BlackBerry™, and WAP-enabled mobile phones. Alerts can also be sent to any PC or laptop computer with e-mail capability.
- **Receive a WebFOCUS report by Two-Way Email.** As a Managed Reporting Administrator or Domain Admin, you use Managed Reporting to create and maintain Two-Way Email templates, the means by which a user requests a report. You also use the Two-Way Email Administrator Console to manage subscriber information, monitor the execution of report requests, cancel requests, and perform other administrative tasks.
- **Synchronize Standard Reports to a PDA (Personal Digital Assistant).** For Palm Computing and Windows Pocket PC mobile users, you can select the PDA Sync report property for Standard Reports. These reports are then sent in a compressed format to PDA users you have authorized for sync access.

  You can publish Standard Reports as channels to PDAs via the AvantGo Enterprise Server. AvantGo enables subscribed users to view standard HTML content on a PDA, regardless of whether the user is currently connected to the Web. Content is placed on the PDA using its standard data synchronization (or sync) functionality.
- **Customize the Managed Reporting environment.** Managed Reporting lets you customize the user environment by adding profiles and customized help files to domains. A profile, which runs each time a user opens a Managed Reporting domain, can provide an introductory report or information about the Managed Reporting domain. Customized help files, which users access from the Managed Reporting domain, provide additional information specific to the Managed Reporting domain, such as detailed explanations of Standard Reports and Reporting Objects. See also *Customizing Dashboard* on page 1-7.

Using Managed Reporting

As a Managed Reporting Administrator or Domain Admin, you use the following tools to create and manage the Managed Reporting user environment:

- **Managed Reporting Repository** enables you to create Standard Reports that users run, launch pages that make those reports available on the Web, and Reporting Objects for users to create their personal reports. For more information, see Chapter 2, *Creating Domains and Standard Reports*.
- **User Administration** enables you to configure user access to the Managed Reporting Environment by specifying user profiles and the domains that the users can access. Grouping users and domains ensures that users can access the information they need, while protecting sensitive or confidential data. User Administration is only available to Administrators. It is not available to Domain Admins.
- **ReportCaster** is an optional tool that enables you to schedule the execution of Standard Reports and, distribute the information directly to the people that need it, on time, automatically. ReportCaster requires ReportCaster Administrator privileges. For more information, see the *ReportCaster Development and Administration Manual*.
- **PDA Sync** report property enables Palm Computing and Pocket PC mobile users to receive WebFOCUS Managed Reporting-based Standard Reports. Once this property is selected, Managed Reporting users who have been granted PDA Sync privileges can sync with WebFOCUS to receive PDA Sync-enabled Standard Reports on their PDAs.
- **Two-Way Email** enables mobile business professionals to request and receive WebFOCUS reports through e-mail, using a handheld device, laptop, or desktop.

When you log on as a Managed Reporting Administrator or Domain Admin, the Managed Reporting Repository, which contains the components that you use to create, test, and deploy domains, Standard Reports, and Reporting Objects for Managed Reporting users, opens.

Accessing Dashboard

There are several views in Dashboard:

- **Public.** This view is accessible to public users and cannot be personalized. Public users have execute-only access; they cannot save report requests or report output to a domain. See *How to Open Dashboard* on page 1-7.
- **Group.** A group view is accessible to users with a valid Managed Reporting user ID and password. The user must be a member of the group to gain access to the view. Group views cannot be personalized by users.
- **Private.** This view is accessible to users with a valid Managed Reporting user ID and password. From this view a user can add to or edit the content blocks the administrator has set up. See *How to Open Dashboard* on page 1-7.

In addition to the public, group, and private views you can also use the View Builder to create a unique look for each public and group view.

When a user opens Dashboard, a single logon page is displayed. You can set a user ID and password for the public user so they do not have to enter login information when they open Dashboard.

For additional security, you can configure the Dashboard logon page so users log on to both Dashboard and the WebFOCUS Reporting Server. For more information, see the Installation and Configuration manual for your platform. You can also integrate the Dashboard logon with other systems such as Web server or LDAP security. See the *WebFOCUS Security and Administration* manual for details.

Procedure How to Open Dashboard

Click the View Builder button in the Application Explorer toolbar.

Customizing Dashboard

When you create a customized view of Dashboard you can:

- Create a unique customization for each public and group view. This includes selecting a template, selecting custom colors, positioning the Domain Tree, Role Tree, and banner, inserting a company logo and much more.
- Create the default content blocks that the user sees when a Dashboard public or group view is opened.
- Create and edit public and group views.
- Identify the Managed Reporting password that the Dashboard will use to connect the public user to Managed Reporting.

- Set a default user ID and password for the public user. When a user ID and password are set, the public user does not have to enter login information when accessing a public view.
- Create Role Trees for Managed Reporting User Groups. For details, see Chapter 10, *Creating a Role Tree*.

For complete details, see Chapter 9, *Customizing Dashboard*.

CHAPTER 2

Creating Domains and Standard Reports

Topics:

- Using Domains in Managed Reporting
- Working With the Server and Application Path Properties
- Working With Standard Reports
- Creating and Editing Standard Reports
- Adding a StyleSheet to a Domain
- Deferred Receipt
- Adding a Uniform Resource Locator
- Importing Procedures and Other Files Into WebFOCUS
- Ignoring Code in a FOCEXEC
- Execution of a Managed Reporting Procedure Using -INCLUDE
- Execution of a Server Procedure
- Customizing Managed Reporting

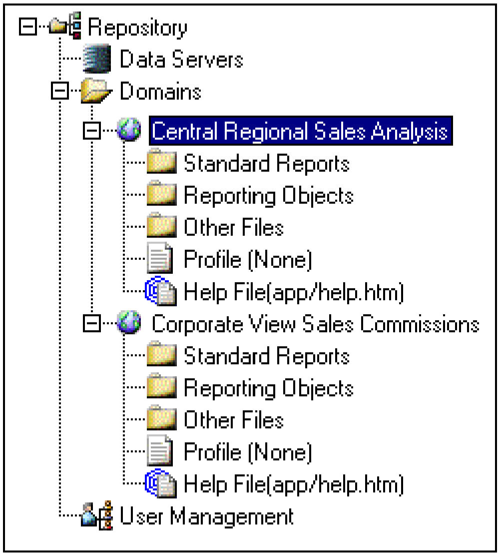
A domain is a graphical, easy-to-use environment for organizing related information. For example, a typical corporate structure could consist of an accounting domain, a sales domain, and an inventory domain. The Domains view provides an environment that developers can use to build and test procedures and Web pages that launch those procedures. There is no limit to the number of domains you can create.

Using Domains in Managed Reporting

A domain organizes Standard Reports and Reporting Objects into logical groups, such as Payroll and Sales. A domain is organized into a series of folders and components. A domain contains the following elements:

Standard Reports folder	Contains the Standard Reports you create for end users. Users run these reports, but they cannot change them. For information about creating Standard Reports for users, see *Working With Standard Reports* on page 2-9.
Reporting Objects folder	Contains views of your organization's data that users can access for ad hoc reporting and to create their own reports. For information about creating Reporting Objects for users, see Chapter 3, *Creating Reporting Objects*.
Other Files folder	Contains image (.gif, .jpg), StyleSheets (.sty), and HTML files that you use to customize and enhance reports. Users cannot access this folder. The folder also provides temporary storage for reports and procedures that you are migrating from other WebFOCUS platforms.
Profile component	The domain profile runs each time a user opens the domain. This profile can display an HTML page or the results of a WebFOCUS procedure prior to entering a domain. For information about using profiles and help files, see *Importing Procedures and Other Files Into WebFOCUS* on page 2-26.
Help component	The help component contains an organization-specific help file that users can access from the Domains view reporting environment. For information about using profiles and help files, see *Importing Procedures and Other Files Into WebFOCUS* on page 2-26.

WebFOCUS organizes these folders and components under each domain in the following manner:

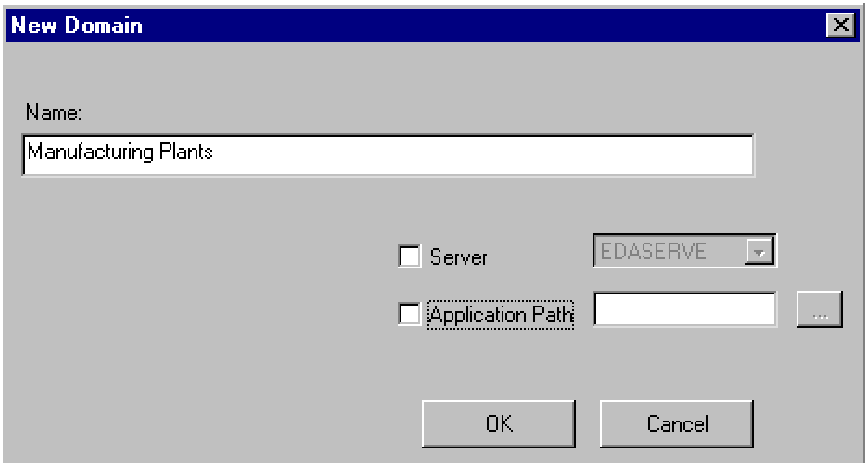


WebFOCUS creates these folders whenever you create a new domain. These folders appear below each domain in the Domain Builder.

Procedure How to Create a Domain

1. Right-click the Domains folder and select *New Domain*. The New Domain dialog box opens.

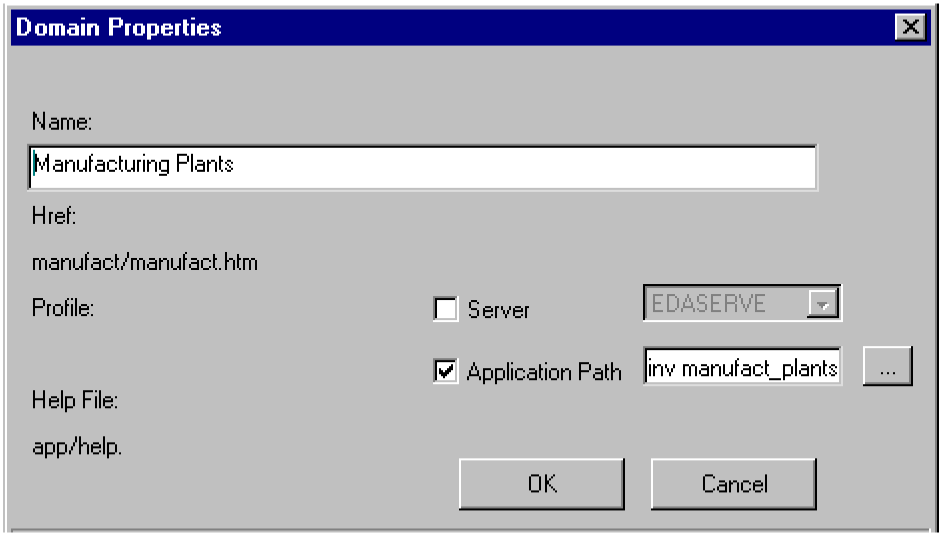
   Note: Only Administrators can create domains; Domain Admins cannot.



2. Enter the name of the new domain in the Name box.
3. Optionally check *Server* to choose a server from the drop-down list.
4. Optionally check *Application Path* to choose your application and override the server's default search path. For more information, see *Working With the Server and Application Path Properties* on page 2-5.
5. Click *OK*.

Procedure How to Set Domain Properties

1. Right-click the domain for which you want to set properties. The Domain Properties dialog box opens:



2. Make your changes to the Server and/or Application Path.

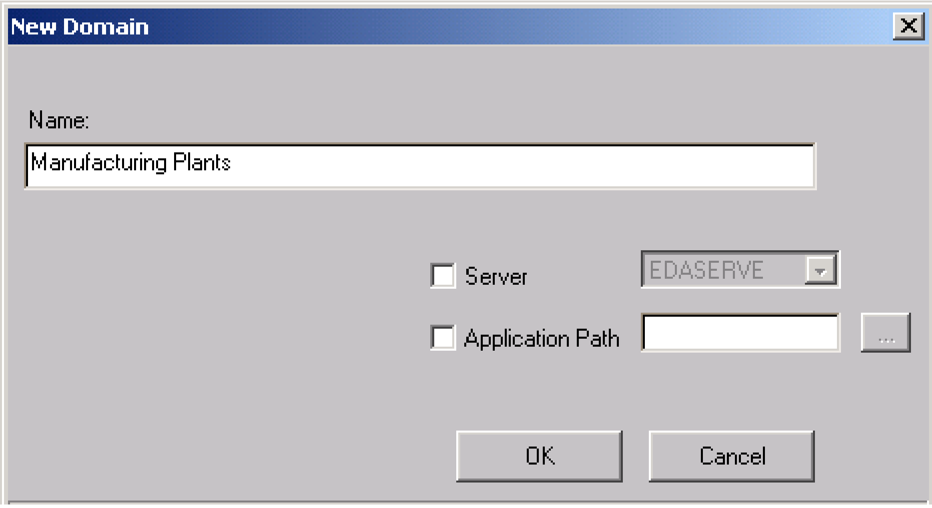
   Note: You can specify multiple application names (for example, inv and manufact_plants) by separating them with a space in the Application Path text box.

3. Click *OK* to remove the old properties and to set the new properties in the Managed Reporting Repository. Click *Cancel* to retain the original properties.

Note: Domain properties can be set or reset at any time. Care must be taken that any change you make does not adversely affect the behavior of existing reports. For example, if you change the server or application path settings in the domain properties, all reports and reporting objects in that domain inherit these changes when you click *OK*.

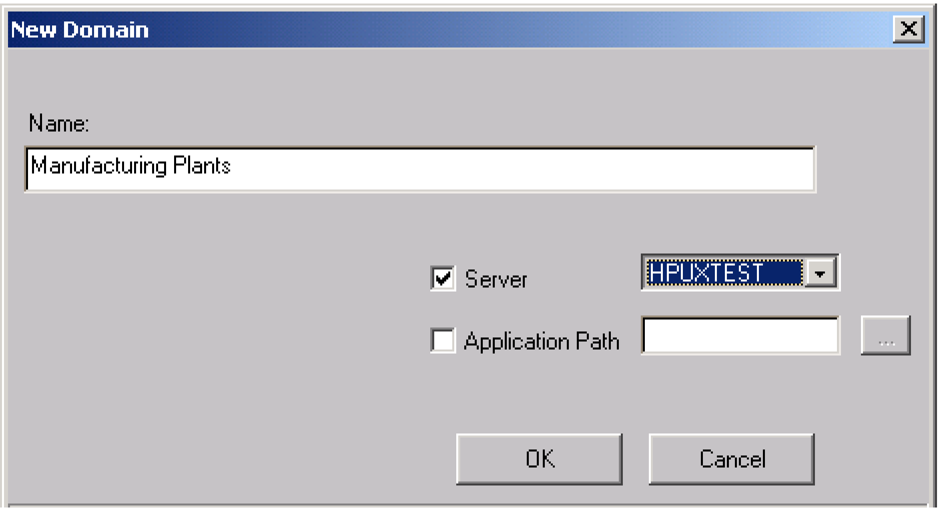
Working With the Server and Application Path Properties

When you create a new Domain, the Server property is unselected, and the drop-down list of WebFOCUS Reporting Server node names is disabled. The default server detected for your session is displayed in the list box. All reports and reporting objects in this domain will inherit the server setting shown in this list box.



The default server is determined by WebFOCUS and depends on a number of factors. Typically, the server displayed will be the one defined by the IBI_REPORT_SERVER setting in the WebFOCUS script file named cgivars.wfs. You can change this setting using the WebFOCUS Client Console (see the *Summary of New Features* manual). If you have logged onto Managed Reporting with a customized logon page on which a value for IBIC_server was specified, then this server will be displayed in the list as your session's default server.

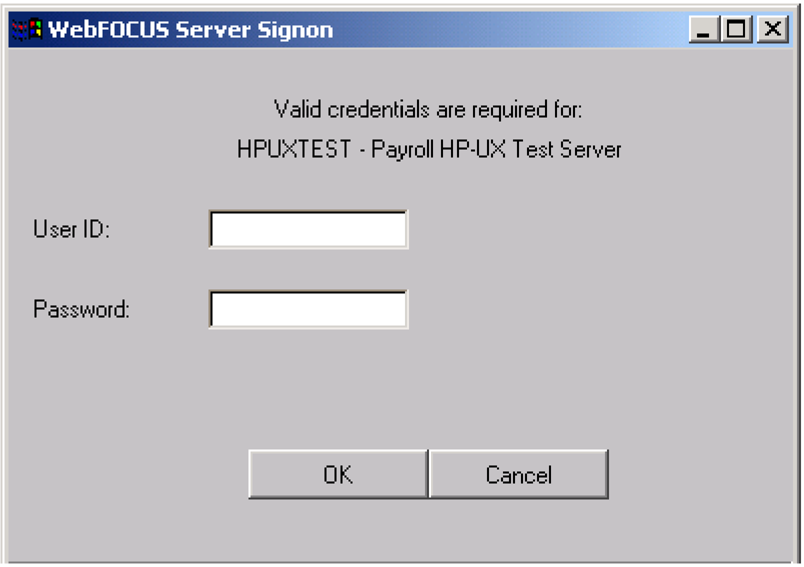
If all of your data is on one Reporting Server, then you should leave this property unchecked. If you have more than one Reporting Server and you wish to fix the server that this domain uses, then you should check the Server property and make your selection from the list. All of the servers (including Cluster Nodes) from your WebFOCUS Communications Configuration file are displayed in the list. For more information about configuring servers for your environment, see the WebFOCUS Client Console documentation in the *Summary of New Features* manual.



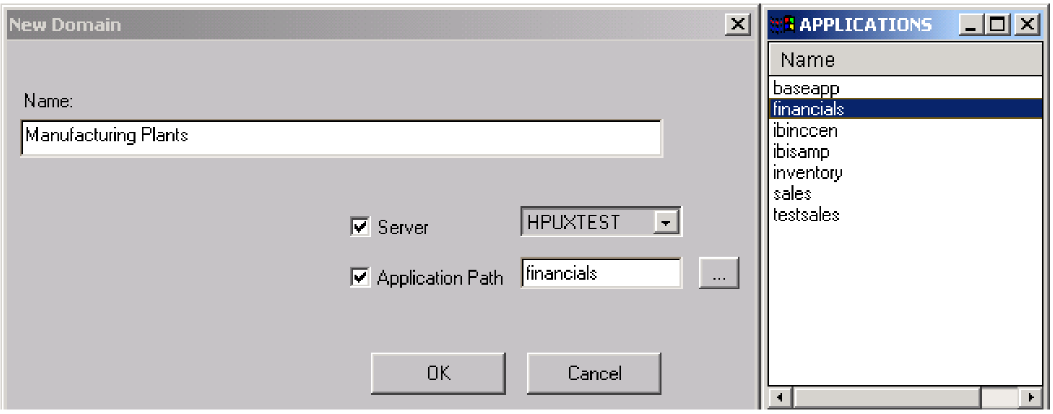
The Application Path property is also unselected by default. This means that Managed Reporting requests will be processed by the WebFOCUS Reporting Server's default search path. The server's search path is generally determined by the settings in its profile, but can be overridden by user and group profiles also (depending on platform). For more information about server search path behavior, consult the iWay server administration documentation for your platform.

If you wish to override the server's default search path behavior for reports run from this domain, you should check the Application Path property. This enables the associated text box. You can then enter the application path manually, or click the ellipses button to retrieve a list of applications on the server.

If server security is enabled and valid credentials are not sent to the server, you will be prompted for WebFOCUS Server credentials. For more information about the security features of WebFOCUS and how to configure them for your site, refer to the WebFOCUS Security and Administration guide.



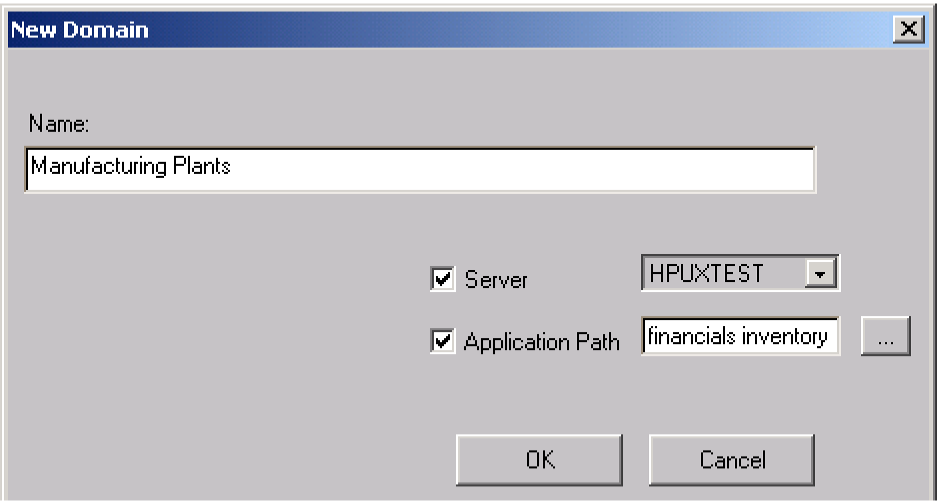
After the server has received valid credentials, the Applications window appears. These applications are retrieved dynamically from the server shown in the Server list box. You can create and manage the resources in these applications from the Data Servers component in Domain Builder. See Chapter 5, *Data Servers Feature*.



As you select an application, it is written to the Application Path text box. Only a single application can be selected in the window at one time and this value is written to the text box. The Application Path property sends the APP PATH values command to the server, where values is what is you entered in the text box. This overrides the server's default search path (it does not append to it).

It is possible to specify more than one application in the text box, however you must type them in manually. The Application window only allows you to select one. This limitation will be removed in a future release.

The properties are applied when you click the *OK* button and then take effect immediately. A domain's properties are inherited by the reports under it and can be overridden at the report level as shown in the next section.



At any time after the domain is created, you can change these settings by pulling up the domain's property dialog. Changes made are applied and take effect immediately upon clicking the *OK* button.

Working With Standard Reports

The reports and graphs that you create or import are stored in the Standard Reports folder. The Standard Reports folder contains group and subgroup folders, which provide an additional means of organizing your Standard Reports. For example, one Standard Reports group folder can contain Standard Reports for inventory management, and another Standard Reports group folder can contain Standard Reports for accounting and billing.

After you create the account group folder, you can create the actual Standard Report. Multiple Standard Reports can be contained in one Standard Reports group folder. The Standard Reports folder, group folders, and individual Standard Reports are organized in a hierarchical, tree-like structure.

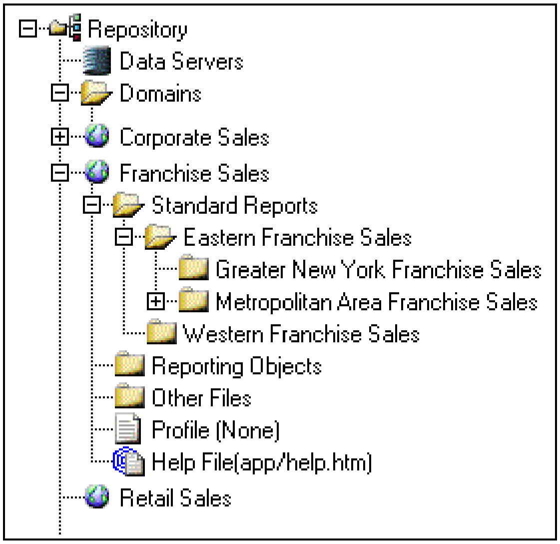
You can work with the Standard Reports folder, group and subgroup folders, and individual Standard Reports using the toolbar. Using this toolbar, you can create group and subgroup folders and Standard Reports, work with existing Standard Report groups and reports, edit Standard Report source code, run Standard Reports to verify the report output, create Web pages for Standard Reports (described in Chapter 4, *Publishing Reports*), and schedule Standard Reports to run at predetermined dates and times.

In addition to creating new Standard Reports, you can migrate existing procedures from other WebFOCUS products to a Standard Reports folder to make them available to users.

If your Standard Reports require additional files, such as graphic (.gif or .jpg) files, StyleSheet files, or additional HTML files, use the Other Files folder to store these files. You can use the toolbar to work with the files in the Other Files folder. See *Importing Procedures and Other Files Into WebFOCUS* on page 2-26 for more information.

Working With Subgroup Folders

You can create subgroup folders that add an additional level of organization to Standard Reports and Reporting Objects. WebFOCUS displays subgroup folders underneath a group folder.



For example, in this view from Domain Builder, Metropolitan Area Franchise Sales is a subgroup folder under the Eastern Franchise Sales group folder.

Subgroup folders have the same functionality as group folders. Users can select any Standard Report listed under a subgroup folder and perform any function available to them by clicking the appropriate button.

Group folders can contain any number of subgroup folders, although subgroup folders are limited to one sublevel. Subgroup folders are an optional feature. When an Administrator or Domain Admin creates a subgroup folder, Standard Reports can be added directly to the subgroup folder. Administrators and Domain Admins can also continue to add Standard Reports to group folders.

Procedure How to Create a Standard Reports Group Folder

1. Expand the domain to which you want to add a Standard Report.
2. Select the Standard Reports folder.
3. Right-click and select *New Standard Report Group*.

   The New Standard Report Group dialog box opens.
4. Enter the name of the group folder in the Name input box.
5. Click *OK*.

The new group folder opens below the Standard Reports folder.

Procedure How to View Standard Report Group Properties

1. Expand the domain that contains the group folder you want to review.
2. Expand the Standard Reports folder.
3. Right-click in the Group Folder and select *Properties*.

   The Standard Report Group Properties window opens and displays the name of the selected group folder.
4. If you want, enter a new name for the group folder.
5. Click *OK* to save your changes, or click *Cancel* to discard your changes.

Procedure How to Create a Standard Report Subgroup Folder

1. Right-click the Standard Reports Group folder and select *New Standard Report.* Then select *New folder.*

   The New Standard Report Group dialog box opens.
2. Enter a descriptive name for the subgroup folder in the Name input box.
3. Click *OK*.

The new Standard Report subgroup folder displays under the group folder you selected.

Procedure How to Move a Standard Report to Another Group Folder

1. Expand the domain that contains the Standard Report you want to move.
2. Expand the Standard Reports folder and then expand the group folder that contains the Standard Report.
3. Right-click the Standard Report and click *Cut*.

   You are prompted to confirm your action. Click *OK* to continue.
4. Select the target Standard Reports group folder.

   Tip: The Standard Reports group folder can be in the same domain or in a different domain.
5. Right-click the Group Folder in which you want to paste the Standard Report and select *Paste*.

WebFOCUS moves the selected Standard Report to the Standard Reports group folder you selected.

Procedure How to Copy a Standard Report to Another Standard Reports Folder

1. Expand the domain that contains the Standard Report you want to copy.
2. Expand the Standard Reports group folder that contains the Standard Report.
3. To copy a Standard Report, right-click the Standard Report and select *Copy*.
4. Select the Standard Reports group folder to which you want to move the Standard Report.

   Tip: The Standard Reports group folder can be in the same domain or in a different domain.
5. Right-click the group folder and select *Paste*.

WebFOCUS copies the selected Standard Report to the Standard Reports group folder you selected.

Procedure How to Copy a Procedure File to a Folder

1. Double-click the Data Server component.
2. Double-click the server you want to use.
3. Double-click *Applications* to expand the list of applications. Select and double-click the application of your choice.
4. Right-click a procedure file and select *Copy*.
5. Expand the domain to which you want to add the procedure file.
6. Expand the Standard Reports folder and then expand the Standard Reports group folder to which you want to add the procedure file.
7. Right-click the group folder and select *Paste*.

WebFOCUS adds the selected procedure file to the Standard Reports group folder.

Procedure How to Delete a Standard Report Group or Subgroup

1. Expand the domain that contains the group folder you want to delete.
2. Expand the Standard Reports folder.
3. Right-click the group or subgroup folder and select *Delete*.

   You are prompted to confirm the deletion.
4. Click *OK* to delete the group folder.

   Caution: If you delete a group folder, all subgroup folders and Standard Reports in the group and subgroup folders are also deleted.

Creating and Editing Standard Reports

Domain Builder provides the following tools for creating Standard Reports:

Report Assistant	A graphical tool that you use to create tabular reports.
Graph Assistant	A graphical tool that you use to create graphs.
Alert Wizard	A wizard that you use to create ReportCaster Alerts.
Editor	A text editor that you use to enter WebFOCUS commands to create a report or graph. For more information about using the WebFOCUS language, see the *Creating Reports With WebFOCUS Language* manual.
Import External File(s)	A Files list that contains files you can add to a Standard Report.
URL	A URL window in which you can specify the name and URL of your file. You can also specify whether you want to enable Show on User's List and PDA Sync.

Before you begin creating individual reports and graphs, you must create the Standard Reports group and subgroup folders that will store the reports and graphs. These group and subgroup folders display in a hierarchical, tree-like structure and provide an additional means of organizing your Standard Reports.

You can right-click a subgroup folder to create a new Standard Report, or right-click a Standard Report to work with an existing report or delete a report. In addition, you can:

- Edit Standard Report source code.
- Run Standard Reports to verify the report output.
- Create Web pages for Standard Reports (described in Chapter 4, *Publishing Reports*).
- Distribute Standard Reports using ReportCaster. For more information, see the *WebFOCUS ReportCaster Development and Administrator's Manual*.

If your Standard Reports require additional files, such as graphic (.gif or .jpg) files, StyleSheet files, or additional HTML files, use the Other Files folder to store these files. See *Importing Procedures and Other Files Into WebFOCUS* on page 2-26 for more information.

Procedure How to Create a Standard Report

1. Expand the domain that will contain the Standard Report.
2. Expand the Standard Reports folder.
3. Right-click the group or subgroup folder that will contain the Standard Report and select *New Standard Report*. The New Standard Report options appear.
4. Click one of the following:
   - Procedure
   - Alert Wizard
   - HTML File
   - Import External File(s)
   - URL
   - New Folder

   Note: Once you enter your WebFOCUS commands you can either save or run the report. If you run before saving, the report is run against the domain's default settings. Click *Save* from the editor to set a server and application. You can then run your report against the server and application you just selected.
5. Select *Procedure*. You are presented the three options: Procedure Viewer, Resource Layout, Text Editor.

   Select *Procedure Viewer*. The New Standard Report dialog box opens.
6. Enter your report name.
7. Check *Server* to select a server from the drop-down list.
8. Check *Application Path* to choose your application. When you check Application Path, the ... button is activated. When you click ..., a window opens to the right of the New Standard Report dialog box that displays the available applications.
9. Select the application you want to use. The application appears in the box next to the Application Path check box in the New Standard Report window.
10. Click *File* to open the list of Master Files.
11. Select the Master File you want to use and click *OK*.

    Note: Syntax and error checking are not performed until the report or graph is executed.
12. Enter a descriptive name for the Standard Report in the Name input box.
13. Click *OK* to open the Procedure Viewer to build the Standard Report.

Procedure How to Add a Report to a Group or Subgroup Folder

1. From the Web server, copy the WebFOCUS procedure or HTML file in the Repository's or Domain's Import subdirectory.

   Note: The Repository (basedir directory), Domain directory, and the Repository's Import directory reside under the \install_directory\basedir directory. The Domain's Import subdirectory resides under the Domain directory. The name of the Domain directory contains only the first eight characters of the domain's description.

2. Expand the WebFOCUS Managed Reporting environment from the WebFOCUS Environment in Developer Studio.

3. From the Repository, open the domain in which you want to add the procedure or HTML file.

4. Right-click the Standard Reports group or subgroup folder that will store the procedure or HTML file, and select the New Standard Report. Then select *Import External Files*.

   WebFOCUS opens the Add Files dialog box and lists the procedure files and HTML files stored in the Repository's and the Domain's Import directory.

5. Do one of the following:

   - Select the procedure or HTML file you want to add to the domain from the list, and click *Add*.

   or

   - If you want to add every procedure and HTML file listed, click *Add All*.

   WebFOCUS adds the procedure or HTML file to the selected group folder and you return to the Managed Reporting Respository.

   Note: If the file already exists in the /basedir/domain_name/app directory, it will not be added because it will overwrite the existing file with the same name.

Procedure How to Delete a Standard Report

1. Expand the domain that contains the Standard Report you want to delete.

2. Expand the Standard Reports folder and then expand the Standard Reports group folder that contains the Standard Report.

3. Right-click the Standard Report you want to delete and select *Delete*.

   You are prompted to confirm your action.

4. Click *OK* to delete the Standard Report.

   WebFOCUS deletes the Standard Report from the Standard Reports group folder.

Procedure How to Edit Standard Report Source Code

1. Expand the domain that contains the Standard Report you want to edit.
2. Expand the Standard Reports folder and then expand the Standard Reports group folder that contains the Standard Report.
3. Right-click a Standard Report in the Standard Reports group folder and select Edit as Text.

   The text editor window opens.
4. Make your changes to the Standard Report file.

   For details about WebFOCUS reporting commands and syntax, see the *Creating Reports With WebFOCUS Language* manual.

   Note: Syntax and error checking are not performed until the Standard Report is executed.
5. Save the changed Standard Report file, and close the text editor window.

   Note: If you edit a Standard Report's source code and make changes to the Standard Report, you should not subsequently open the Standard Report with a reporting tool. If you need to make additional changes to the Standard Report, reopen the file in the text editor.

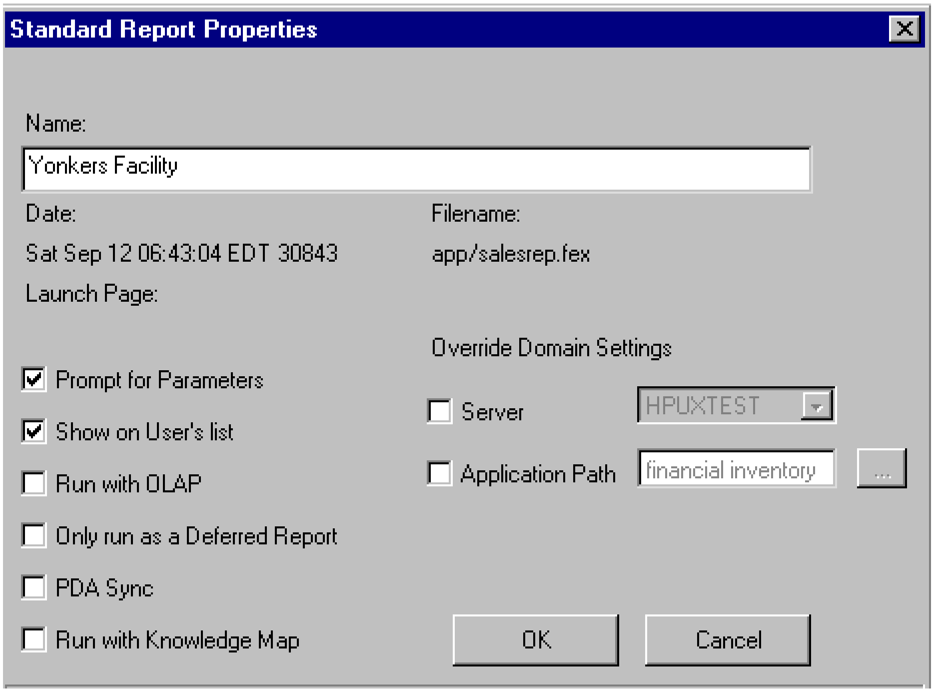
Viewing Standard Report Properties

You can use the Standard Report Properties dialog box to review the date the report was created and the file name for the report. You can use the Properties dialog box to change a server and an application. You can also use the Standard Report Properties dialog box to:

- Change the name of the Standard Report.
- Select *Prompt for Parameters*.
- Select *Show on User's list*.
- Select *Run with OLAP*.
- Select *Only run as a Deferred Report*.
- Select *PDA Sync*.
- Select *Run with Knowledge Map*.

Procedure How to View Standard Report Properties

1. Expand the domain that contains the Standard Report you want to review.
2. Expand the Standard Reports folder and then expand the Standard Reports group folder that contains the Standard Report.
3. Right-click the Standard Report you want to review, and select Properties. The Standard Report Properties dialog box opens:



   This dialog box lists the name of the Standard Report, the date the Standard Report was created, the file name for the Standard Report, and the HTML launch page that can be used to run the Standard Report.

4. To:
   - Change the Standard Report name, enter a new name in the Name input box.
   - Select dynamic prompting, check the *Prompt for Parameters* check box.
   - Display as a Standard Report in the user environment (Domains and HTML User), check the *Show on User's List* check box.
   - OLAP-enable the report, check the *Run with OLAP* check box.

- Only run the report in deferred mode, check the *Only run as Deferred Report* check box.
- Publish a Standard Report for PDA Sync, check *PDA Sync*.
- Specify a report as a source report, check *Run with Knowledge Map*.
- Select a server, check the *Server* check box, and select a server from the drop-down list.
- Select an application, check the *Application Path* check box and click the ... button. A window appears that lists the applications from which you can choose. Select an application by clicking it. The application appears in the box next to Application Path.

Note:

- You can change any of these properties at any time, with the exception of the Master File if you created the report using an assist tool. If you click *Save As*, the properties window appears and the Files button is disabled.
- This feature is used in conjunction with the Windows Mapping Tool. For more information, see the *WebFOCUS Managed Reporting Development and Administration Developer Studio Edition* manual.

5. Click *OK* to save your changes or click *Cancel* to discard your changes.

Procedure How to Run a Standard Report

1. Expand the domain that contains the Standard Report you want to run.
2. Expand the Standard Reports folder and then expand the Standard Reports group folder that contains the Standard Report.
3. Right-click the Standard Report you want to run, and select *Run*.
4. After you review the report output, you can use the browser functions to save the output to an HTML file or to discard the output and close the browser window.

Adding a StyleSheet to a Domain

To make predefined StyleSheets available from Report Assistant, an administrator must add one or more StyleSheet files (.sty) or Cascading StyleSheets (.css) to a domain's Other Files component. You add a StyleSheet file to this component in the following ways:

- From the Other Files component, access the WebFOCUS Editor. Using the WebFOCUS StyleSheet syntax, code your StyleSheet in the editor and save it to the Other Files component as a style file or a cascading style file. When you save the file, select the Show as Predefined Style option, so you or the user can apply the StyleSheet from Report Assistant. For more information on StyleSheet syntax, see the *Creating Reports With WebFOCUS Language* manual.
- Import a StyleSheet file into the Other Files component. For more information on importing files, see *How to Import Files Into the Other Files Folder* on page 2-27.

Deferred Receipt

You can submit Standard Reports to WebFOCUS using Deferred Receipt. When you request to run a Standard Report in deferred mode, WebFOCUS submits the request and displays a notification in a new browser window to inform the user that the request was submitted successfully.

The Deferred Report Status Interface enables you to obtain information about deferred reports. You can open this interface to view the status of deferred reports at any time by selecting the Deferred Status option. From this interface, you can perform the following actions on a deferred report:

- View deferred report output.
- View the number of days remaining prior to expiration (deletion) on the server.
- Sort deferred report output by date, description, domain, and server ID.
- Specify a sort order of ascending or descending.
- Delete a deferred report from the WebFOCUS Reporting Server.
- Save the report output as a My Report.
- Review or change parameters associated with a deferred report.
- Terminate a deferred request that is in the deferred report queue.
- Terminate a deferred report that is executing.

Submitting a Standard Report as a Deferred Report

You can submit a Standard Report for Deferred Receipt as you create it by selecting an existing Standard Report and submitting it in deferred mode, as described in the following procedure.

Procedure How to Submit a Standard Report as a Deferred Report

1. Expand the domain with which you want to work.
2. Right-click the Standard Report and select *Run Deferred*.

   A new browser window opens to display notification of successful or unsuccessful submission of the Deferred Report.
3. Close the browser window displaying the notification message.

   You return to Domain Builder. You can check the status of the Deferred Report by selecting the *Deferred Status* icon in the toolbar.

Designating a Standard Report as Deferred Receipt Only

Administrators and Domain Admins can designate that a Standard Report only run in deferred mode. When a user selects a Standard Report that can only run in deferred mode, WebFOCUS disables the *Run* option.

Procedure How to Designate a New Standard Report as a Deferred Report Only

1. Expand the domain with which you want to work.
2. Select a Standard Reports group folder.
3. Right-click and select *New Standard Report*. Then select *Procedure*.
4. Select one of the following tools to create the report: Procedure Viewer, Resource Layout, Text Editor.
5. Enter a descriptive name for the report or graph in the Name input box.
6. Click *File* to access the Master File list.
7. Select the Master File with which you want to work and click *OK*.
8. Check *Only run as a Deferred Report*.
9. Click *OK*. The reporting tool opens. Create your report and click *Save* and then *Quit*.

Procedure How to Designate an Existing Standard Report as Deferred Receipt Only

1. Expand the domain with which you want to work.
2. Select a Standard Report.
3. Right-click and select *Properties*. The Standard Report Properties dialog box opens.
4. Check *Only run as a Deferred Report*.
5. Click *OK*.

   When a user highlights the Standard Report, the Run Deferred button is active, and the Run button is disabled.

Checking the Status of Deferred Receipt Standard Reports

When you submit a request for Deferred Receipt, WebFOCUS returns a confirmation that displays in a new browser window. The Run Deferred Notification window displays to notify you that a request has been successfully submitted for Deferred Receipt.

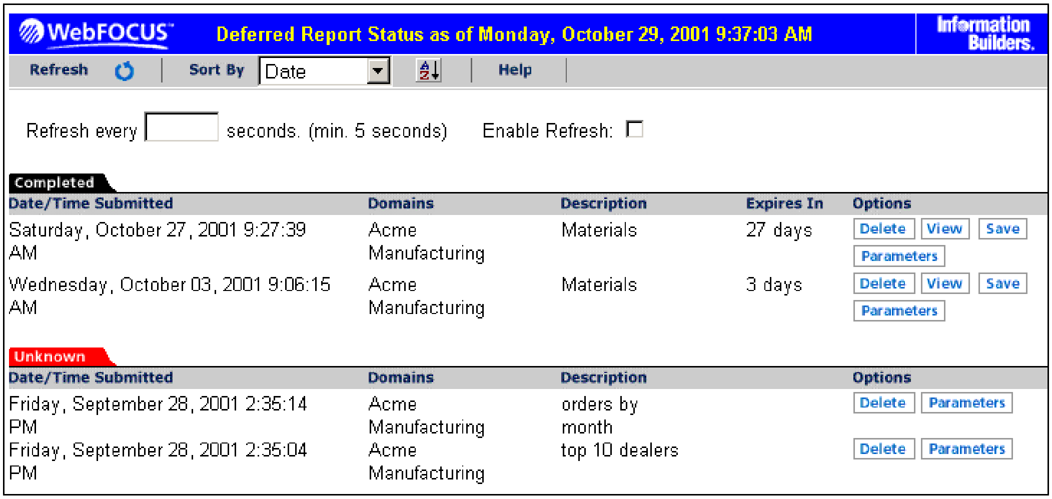
You can access information on the status of deferred requests submitted to the WebFOCUS Reporting Server by clicking the *Deferred Status* icon.

The Deferred Report Status Interface opens in a separate browser window. If you minimize the browser window and then log out of WebFOCUS, the browser window remains open. If you then maximize the browser window and select an option, you receive a notification that your user ID has expired. This is because WebFOCUS clears security information when you log out of Managed Reporting.

Deferred Report Status

The status of deferred requests are organized under the following sections within the interface:

- **Completed.** Indicates that the Deferred Receipt request has finished processing.
- **Running.** Indicates that the Deferred Receipt request is processing.
- **Queued.** Indicates that the Deferred Receipt request is queued.
- **Unknown.** Indicates that the Deferred Receipt request cannot be identified. This can occur when the file containing the deferred report results cannot be found.



Column headings provide information about the Standard Report including the date and time the Standard Report was submitted, the domain of origin, a description of the report (the report name), an expiration feature, and an Options heading for user options within the Deferred Report Status Interface.

Administrators should be aware that there is a dual level of security associated with Deferred Receipt. When a user selects the Deferred Status option, the status for all the deferred requests submitted by the WebFOCUS Managed Reporting user ID is obtained from the WebFOCUS Reporting Server. A user can view the status of all the deferred requests submitted by the WebFOCUS Managed Reporting user ID, but can only delete, view, save, stop, or review parameters for deferred requests submitted with an identical WebFOCUS Reporting Server user ID. Therefore, to preserve security, we recommend that users be assigned unique Managed Reporting user IDs.

The Options available in the Deferred Report Status Interface are based upon the status of the report request and security validation. A user can perform various functions by clicking the buttons under Options:

- **Delete.** Available for all report status categories. The Delete option deletes the deferred request according to the report status, as follows:
  - **Queued.** When a deferred request is listed in the Queued tab, the Delete option removes the deferred report from the WebFOCUS Reporting Server and deletes the deferred request ticket from the WebFOCUS Repository.
  - **Unknown.** When a deferred request is listed in the Unknown tab, the Delete option deletes the deferred request ticket from the WebFOCUS Repository.
  - **Completed.** When a deferred request is listed in the Completed tab, the Delete option removes the report from the screen, deletes the deferred report results from the WebFOCUS Reporting Server, and deletes the deferred request ticket from the WebFOCUS Repository.
  - **Running.** When a deferred request is listed in the Running tab, the Delete option deletes the deferred request ticket from the WebFOCUS Repository and cancels the job on the WebFOCUS Reporting Server.
- **View.** Available when the report status is completed.

  The View option displays the completed report in a new browser session, or the report format may result in the opening of a Windows dialog box that prompts the user to save the report to disk or open the report within an application (Microsoft Excel, Microsoft Word, Adobe Acrobat).
- **Save.** Available when the report status is completed.

  The Save option saves the report to a special folder, Deferred Reports Output, in the Domains My Reports tab. The description of the My Report is the description that displayed in the Deferred Report Status Interface, along with the date and time the My Report was created.

  Note: This option is not displayed for users with Run-only or HTML User privileges. Run-only and HTML Users cannot save report results to the Managed Reporting Repository.
- **Parameters.** Available when the report status is completed or queued. The parameters option allows a user to review or change report variables.

  Note: Changing report variables generates a new report that does not overwrite the original request.

Under certain circumstances, WebFOCUS is unable to submit the request to run in deferred mode. This can occur, for example, when the WebFOCUS Reporting Server is unavailable. When WebFOCUS is unable to submit a deferred request, a Deferred Receipt Notification window opens, notifying the user of the failure.

Adding a Uniform Resource Locator

In addition to listing reports and graphs in a report group folder, you can also add a hyperlink to other Web pages inside your organization or to Web sites outside your organization. Adding a hyperlink to a group folder enables you to access Web resources quickly. WebFOCUS opens another browser window and displays the Web page associated with the Uniform Resource Locator (URL).

In the Domains and HTML User views, you can enable users to access these hyperlinks using a Domain's Standard Reports.

Procedure How to Add a URL to the Domains View

1. Right-click the Standard Reports group folder and select New Standard Report.
2. Select *URL* from the cascading menu.

   The New URL dialog box opens.
3. Enter a descriptive name for the URL in the Name input box. End users see this name on the Domain's Standard Reports tab.
4. Enter the URL for the Web page in the URL input box. For example,

   `webserver/ibi_html/ggdemo/default.htm`
5. If you want the description to appear on the Domain's Standard Reports tab for users to access, click *Show on User's List*.

   If you do not check this box, the description appears below its Standard Reports group folder, where only the Administrator can access the URL.
6. Click *OK* to save the description and the URL.

Importing Procedures and Other Files Into WebFOCUS

WebFOCUS allows you to use existing FOCUS procedure files as Standard Reports in your WebFOCUS domains. You copy a procedure file, created in any platform and version of WebFOCUS, into a Repository's or Domain's Import directory. You then add the procedure file to a Standard Reports group folder through the New Standard Report dialog box.

When you click Add in the dialog box, WebFOCUS retrieves the procedure files in the Repository's or Domain's Import directory and displays them in the Add Files dialog box. It is from this list of files that you choose which ones to import.

Note: Files placed in the Repository's Import directory are accessible to every domain, while files placed in a Domain's Import directory are available to only that domain.

Procedure How to Import a Procedure File to Be Used As a Standard Report

1. Locate the procedure file you want to import and copy it into either the Repository's or the Domain's Import directory.

   The Repository, the Domain directory, and the Repository's Import directory reside in the /*install_directory*/basedir directory on the Web Server. The Domain's Import directory resides in the Domain directory. The name of the Domain directory appears as only the first eight characters of the domain's description.

2. Expand the Managed Reporting Environment in the Developer Studio WebFOCUS Environment area.

3. Open the domain to which you want to add the file.

4. Right-click a Standard Reports group folder, then select New Standard Report.

5. Select Import External Files.

   The Add Files dialog box opens.

6. Select the procedure file you want to import from Select Files to Add.

7. Click *Add*.

   To add all the files, click *Add All*. WebFOCUS adds the procedure to the Standard Reports group folder.

Other Files

In addition to FOCUS procedure files, application component files (.fex, .gif, .sty, .htm) can be added to the WebFOCUS Repository or a domain component through the use of the Other Files component. For more information on adding StyleSheets (.sty), see *Adding a StyleSheet to a Domain* on page 2-20.

You use the Other Files component to list the application components stored in the Repository's or a Domain's Import directory. (See *Working With the Server and Application Path Properties* on page 2-5, for more information about these directories.) As with procedure files, any other files placed in the Repository's Import directory are accessible to every domain, while a file placed in a Domain's Import directory is available to only that domain.

Procedure How to Import Files Into the Other Files Folder

1. Locate the existing procedure file or application component file (.fex, .gif, .sty, .htm) that you want to add to the Other Files folder and copy it into either the Repository's or the Domain's Import directory.

   The Repository, the Domain directory, and the Repository's Import directory reside in the /*install directory*/basedir directory on the Web Server. The Domain's Import directory resides in the Domain directory. The name of the Domain directory appears as only the first eight characters of the domain's description.

2. Expand the Managed Reporting Environment in the Developer Studio WebFOCUS Environment area.

3. Open the domain in which you want to add the file.

4. Right-click the *Other Files* folder and select *New Other Files*.

5. Select *Import External Files* from the cascading menu.

   The Add Files dialog box opens and displays the contents of the Repository's and the Domain's Import directory.

   Tip: You can also right-click the *Other Files* folder and select *Add Files* from the pop-up menu.

6. Select the files you want to add to the domain from Select Files to Add.

7. Click *Add*.

   To add all the files, click *Add All*. The Add Files dialog box closes and returns you to Domain Builder. WebFOCUS displays the files under the Other Files folder.

8. To copy HTML or procedure files into a Standard Reports group folder, right-click the newly added procedure files under Other Files, then select *Cut* or *Copy*.

Note: Other application component files (.gif, .sty, .htm) must remain in the Other Files folder.

9. Open the component folder and right-click the group folder to which you want to add the selected procedure files, and select *Paste*.

   WebFOCUS adds the procedure files to the group folder. In the Domains view, these Standard Reports can now be accessed from the Standard Reports tab.

10. To prevent WebFOCUS from displaying a particular file on the Standard Reports tab in the Domains and HTML User view:

    a. Right-click the procedure file from the group folder and select Properties.

    b. Deselect *Show on User's List*.

    c. Type a new description for the procedure file in the Name input box.

    d. Click *OK*.

Ignoring Code in a FOCEXEC

You can instruct WebFOCUS Managed Reporting to not process single lines or blocks of FOCEXEC code with the -MRNOEDIT tag.

Syntax — How to Ignore Code in a FOCEXEC

To instruct Managed Reporting to not process FOCEXEC code, use the following:

- For a single line of code:

```
-mrnoedit focexec_code
```

- For multiple lines of code:

```
-mrnoedit begin
focexec_code
-mrnoedit end
```

Note: The *focexec_code* must fit on the same line.

The syntax above is not part of the FOCUS language. It is used only by Managed Reporting installed on the Web server.

Managed Reporting will not process the lines when evaluating the Managed Reporting procedure prior to sending it to the WebFOCUS Reporting Server. The lines of code will be passed without the MRNOEDIT tags to the WebFOCUS Reporting Server.

By design, amper variables specified within the MRNOEDIT tags are resolved by Managed Reporting. You should uncheck the procedure property, Prompt for Parameters, if you do not want to be prompted for parameter values when:

- Running a procedure immediately.
- Running a procedure deferred.
- Scheduling a procedure.

Example Using Lowercase and Uppercase Syntax With MRNOEDIT

Both lowercase and uppercase syntax are supported for the MRNOEDIT tag.

```
-mrnoedit -INCLUDE SERVDEF
```

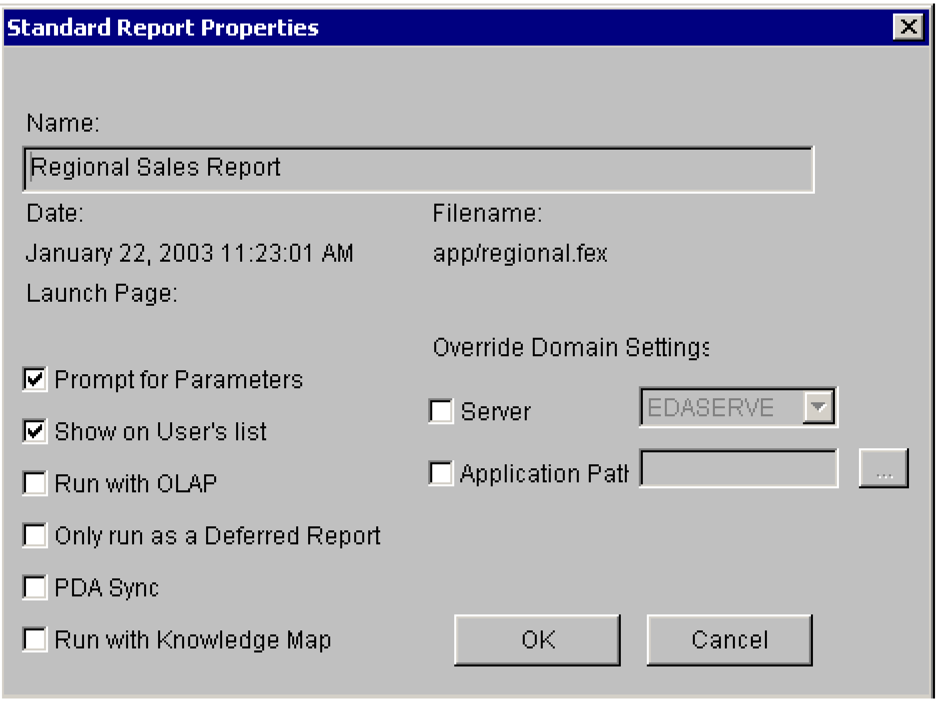
Managed Reporting does not edit the –INCLUDE SERVDEF and does not try to resolve the retrieval of the FOCEXEC from the Managed Reporting Repository. In this case, the –INCLUDE is resolved on the WebFOCUS Reporting Server. Therefore, SERVDEF.FEX should reside on the path of the WebFOCUS Reporting Server.

```
-mrnoedit begin
TABLE FILE CAR
SUM SALES
BY COUNTRY
-INCLUDE CNTVAL
END
-mrnoedit end
```

Managed Reporting will not dynamically edit the code within the –MRNOEDIT tags. The code will be passed to the WebFOCUS Reporting Server without the –MRNOEDIT tags and the WebFOCUS Reporting Server will resolve the –INCLUDE as a remote procedure.

Execution of a Managed Reporting Procedure Using -INCLUDE

When you name a Standard Report, the name displays as the description in Managed Reporting. Managed Reporting creates the actual file name, however, it does not include underscores or special characters. The properties of a Standard Report will display the file name created by Managed Reporting. This is the value to specify when referencing the Standard Report in a -INCLUDE.



Execution of a Server Procedure

To execute a FOCEXEC that resides outside Managed Reporting but on the path of the WebFOCUS Reporting Server, you must use:

```
-REMOTE BEGIN
EX focexec
-REMOTE END
```

or

You can use -INCLUDE *focexec_name* within a Managed Reporting based report using the MRNOEDIT tag.

For more information, see *Ignoring Code in a FOCEXEC* on page 2-28.

Passing Parameters in Managed Reporting

Managed Reporting does not support the passing of variable values directly on the call to execute a FOCEXEC. For example:

```
EX fexname var='value'
```

To pass variable values to a Managed Reporting procedure, first initialize the variable with a -SET, and then execute the FOCEXEC. For example:

```
-SET &var='value'
EX fexname
```

Managed Reporting will retrieve the procedure code, package it with the -SET command and submit it to the WebFOCUS Reporting Server for execution.

Customizing Managed Reporting

As a Managed Reporting Administrator, you can customize Managed Reporting for user access. You can use the following standard domain components to customize the user's reporting environment:

- **Profile.** A profile runs each time a user accesses a domain in Managed Reporting. A profile can be used either to run a procedure when the user opens a Managed Reporting domain or to display an HTML file that contains introductory information about the Managed Reporting domain that the user is accessing.
- **Customized Help Files.** This component specifies an HTML help file that users can access from the Managed Reporting domain. This HTML file can provide additional information, such as detailed explanations of Standard Reports and Reporting Objects, specific to the Managed Reporting domain.

When you create a new Managed Reporting domain, WebFOCUS automatically creates the Profile and Help components.

Using Domain Profiles

WebFOCUS executes the profile associated with a domain each time a user opens a Managed Reporting domain. You create a domain profile by either writing a WebFOCUS procedure (.fex) or defining an HTML page (.htm). For example, you can write a WebFOCUS procedure that displays a report or defines an HTML page that displays company information each time a user opens a particular domain. The profile is not run each time a user submits a request to the WebFOCUS Reporting Server.

In addition to creating a new profile, you can import an existing procedure to the Managed Reporting Repository to use as a domain profile. You can import a procedure, created on any platform and version of WebFOCUS, using the Other Files folder to add the profile to the selected domain.

To use the Other Files folder to import a profile, you must first add the profile to the domain's Import directory, then include the profile in the Other Files folder. After you have added the profile to the Other Files folder, you can use the toolbar to move or copy the profile to the profile icon.

Procedure How to Add a Profile to a Domain

1. In the Managed Reporting Repository window, expand the domain to which you want to add the profile.

   Tip: Open the Other Files folder to verify that the file you want to add as the profile is listed in the directory. If the file is not listed, see *How to Import a Profile* on page 2-32 for instructions about adding files to the Other Files folder.

2. Right-click *Profile* and select *New*. Then select *Procedure Viewer*.

   The New Profile dialog box opens.

3. Specify the name of the file (for example, filename.htm or filename.fex) that you want as a profile and click *OK*.

4. Use the Procedure Viewer to create the procedure for the profile.

Procedure How to Import a Profile

1. Use the Web server's operating system commands to copy the existing profile file into the WebFOCUS domain's Import directory.

   Note: Domain directories reside under the */install_directory/*basedir directory on the Web Server. You can review the domain's properties to determine the domain's directory. The name of the domain directory contains only the first eight characters of the domain's description.

2. Expand the Managed Reporting Environment in the Developer Studio WebFOCUS environment area, then expand the Domain.

3. Right-click the *Other* folder and select *New Other File*. Then select *Import External File(s)*.

   The Add Files dialog box opens and lists the contents of the domain's Import directory.

4. Select the files you want to add to the domain from the Available Files list.

5. Click *Add*.

   The Add Files dialog box closes and you return to the Managed Reporting Repository window. WebFOCUS lists the added files under the Other Files folder.

6. Select an imported file, under the Other Files folder, and click either the *Cut* or *Copy* icon in the toolbar.

7. Select the *Profile* icon, then click the *Paste* icon in the toolbar.

   The profile is added to the domain.

Procedure How to Edit a Profile

1. Expand the domain that contains the profile you want to edit.
2. Right-click the *Profile* icon and select *Edit as Text*.

   The Text Editor window opens for you to edit the profile. You can use standard text editor functions such as cut, copy, and paste to edit the profile source file.
3. Save the profile and exit the editor.

Note: Syntax and error checking are not performed on the profile until the profile is executed.

Procedure How to Review Profile Properties

1. Expand the domain folder that contains the profile you want to review.
2. Right-click the *Profil*e and select *Properties*.

   The Profile Properties dialog box opens and displays the name of the profile, the date and time it was created, and the Prompt for Parameters check box.
3. Click *OK* to close the Profile Properties dialog box.

   You return to the Managed Reporting Repository window.

Using Domain Help Files

A domain help file is an HTML file that you create to provide users with company specific information for a Managed Reporting domain. The user accesses this customized help by clicking Help in the Managed Reporting domain's tabbed dialog boxes. This HTML file can provide additional information, such as descriptions or detailed explanations of Standard Reports and Reporting Objects, specific to the Managed Reporting domain.

In addition to creating a new HTML help file, you can import an existing help file to the Managed Reporting Repository, to make them available to users. You import an HTML help file using the Other Files folder to add the help file to the selected domain.

To use the Other Files folder to import a help file, you must first add the help file to the domain's Import directory, then include the help file in the Other Files folder. After you have added the help file to the Other Files folder, you can use the toolbar to move or copy the help file to the Help File icon.

The domain Help option has been implemented with context sensitive HTML tag references. You can code the domain Help file to display information about specific Standard Reports and Reporting Objects for your users. There are also tags to allow you to provide general information for My Reports and Shared Reports. The following table lists the HTML tags you can utilize when coding the domain specific help file:

Managed Reporting Item Selected	**HTML Tag Names**
Domain description in right pane	#standardreport
Group folder or subgroup folder	#standardreport
Procedure	#app_*filename*_fex where *filename* is the actual file name stored in the domain's app/directory with special characters (such as slashes or periods) replaced with an underscore.
HTML page or URL	#http_*url* where *url* is the URL with slashes and periods replaced with underscores.
ReportCaster Output	#http_*url* where *url* is the URL with slashes and periods replaced with underscores.

Procedure How to Add a Help File

1. In the Managed Reporting Repository window, open the domain to which you want to add a help file.

   Tip: Open the Other Files folder to verify that the file you want to add as the domain help file is listed in the directory. If the file is not listed, see *How to Import a Help File* on page 2-35 for instructions about adding files to the Other Files folder.

2. Right-click the *Help* file icon and select *New*.

   The New Help File dialog box opens.

3. Enter a name for your help file in the File Name input box and click *OK*. The text editor window opens.

4. Enter the HTML code for the help file.

   You can also use standard text editor functions such as cut, copy, and paste to help create the HTML help text.

5. Save the help file and exit the editor.

The path name for the help file is displayed (in parentheses) to the right of the help component. A user can now access the help file from the domain's reporting environment.

Procedure How to Import a Help File

1. Copy the existing help file into the WebFOCUS domain's Import directory.

   Note: Domain directories reside under the */install_directory/*basedir directory. The name of the domain directory contains only the first eight characters of the domain's description.

2. Open the domain to which you want to add the help file.
3. Right-click the Other Files folder and select *Add Files*.

   The Add Files dialog box opens and lists the contents of the domain's Import directory.

4. Select the help file you want to add to the domain from the Available Files list.
5. Click *Add*.

   The Add Files dialog box closes. WebFOCUS lists the added help file under the Other Files folder.

6. Right-click the imported help file, under the Other Files folder, and select *Copy*.
7. Right-click the *Help File* icon, and select *Paste*.

The help file is added to the domain.

Procedure How to Edit a Help File

1. In the Managed Reporting Repository window, expand the domain that contains the HTML help file you want to edit.
2. Right-click the *Help File* icon and select *Edit Source*.

   The Text Editor window opens for you to edit the HTML help file. You can use standard text editor functions such as cut, copy, and paste to edit the HTML help file.

3. Save the HTML help file and exit the editor.

Procedure How to Review Help File Properties

1. In the Managed Reporting Repository window, expand the domain that contains the HTML help file you want to review.
2. Right-click the *Help File* icon and select *Properties.*

   The Help File Properties dialog box opens and displays the name of the help file, the date and time it was created, and the type of data in the file.
3. Click *OK* to close the Help File Properties dialog box.

CHAPTER 3

Creating Reporting Objects

Topics:

- Reporting Objects
- Running a Reporting Object
- Components of a Reporting Object
- Creating a Join With Graphical Tools
- Saving a Join
- Customizing a Join

WebFOCUS Managed Reporting provides a streamlined reporting environment that virtually eliminates the complexities of today's corporate data by giving users a simple way to generate reports and graphs.

With WebFOCUS Managed Reporting, a Database Administrator can easily transform complex views of data into simple objects labeled with common business terminology that every user can understand, such as "Weekly Sales" or "Revenue." Users can then use these objects to create a wide range of reports and graphs by choosing from existing Reporting Objects to create, save, and use their own reports.

Reporting Objects

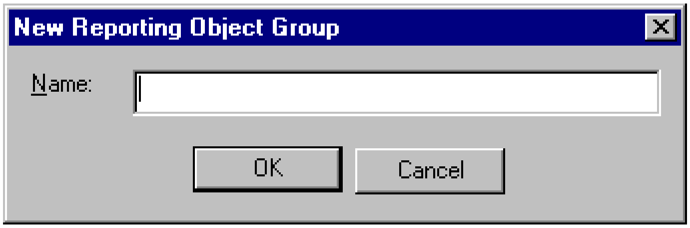
Reporting Objects are stored in the Reporting Objects folder. The Reporting Objects folder contains simple views of your organization's data that users access to create their own reports. You begin creating a Reporting Object by first defining a Reporting Object group folder. You organize the Reporting Objects under group folders.

After you define a group folder, you define one or more Reporting Objects in that folder. The Reporting Objects that you create can include selection criteria (WHEREs), JOINs, virtual fields (DEFINEs), Filters, and other FOCUS statements, as well as Reports and Graphs, which you supply as templates. You use these Reporting Object components to define the Reporting Objects that are available to the Managed Reporting user's environment.

Procedure How to Create a Reporting Object Group Folder

1. Expand the domain in which you want to add a Reporting Object by clicking the *plus sign (+)* next to the domain name.reporting objects reporting objects
2. Right-click the *Reporting Objects* folder and select *New Reporting Object Group*.

   The New Reporting Object Group dialog box opens:



3. Enter the name of the Reporting Object group in the Name box.
4. Click *OK*.

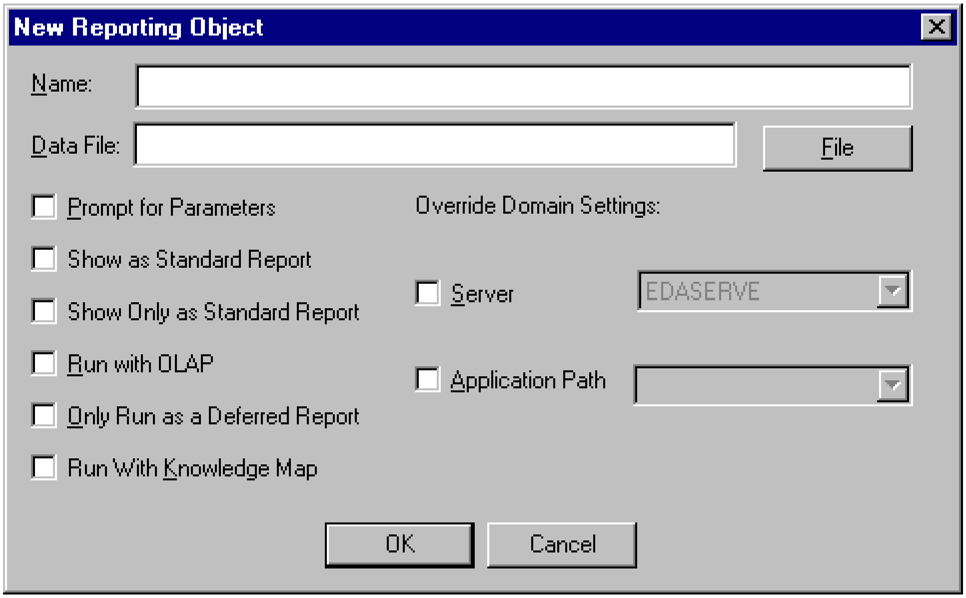
   The new Reporting Object group folder appears below the Reporting Object component folder.

Procedure How to Define a Reporting Object

Once you have defined the Reporting Object group folder, you can create the actual Reporting Object.

1. Right-click a Reporting Object group folder, select *New Reporting Object,* and then *Reporting Object*.

The New Reporting Object dialog box opens:



2. Enter a descriptive name for the Reporting Object in the Name box.
3. Optionally check *Server* to choose a server from the drop-down list.
4. Optionally check *Application Path* to choose your application and override the server's default search path.
5. In the Data File box, enter the name of a data description to be associated with the Reporting Object.

   You can also click *File...* to browse the available files. Select the data description and click *OK* to return to the New Reporting Object dialog box.
6. WebFOCUS offers the following optional features when creating your Reporting Object:

   a. If you check the *Prompt for Parameters* check box, WebFOCUS prompts the user to supply a value (parameter) when the Reporting Object is used to create a My Report.

   b. If you check *Show as Standard Report*, WebFOCUS lists the Reporting Object under the Standard Reports tab in addition to the Reporting Objects tab in the Domains reporting environment. A user can then run the Reporting Object as if it was a Standard Report.

c. If you check *Show Only as Standard Report*, WebFOCUS will only display the Reporting Object under the Standard Reports tab in the Domains environment.

Caution: When you create a Reporting Object, do not click the *Report Painter* button on the Report Assistant window unless you also check *Show Only as Standard Report* on the New Reporting Object window. You cannot open Reporting Objects created with Report Painter with the Report Assistant in Managed Reporting. However, you can run a Reporting Object when it is shown as a Standard Report.

d. If you check *Run with OLAP* and you have OLAP-enabled the Reporting Object, users can run the Reporting Object using OLAP capabilities.

e. If you check *Only run as a Deferred Report* , WebFOCUS always submits this report in deferred mode. See the *WebFOCUS Managed Reporting End User's Manual* for more information.

f. If you check *Run With Knowledge Map*, this specifies a report as a source report. This feature is used in conjunction with the Mapping tool. For more information, see *Creating Reports With Graphical Tools*.

7. Click *OK*.

Note: You may be prompted for WebFOCUS Server credentials when you click the *File* button or *OK* button, depending on your environment.

Running a Reporting Object

You can run all components of a Reporting Object from the Reporting Object window. This facilitates development by allowing Administrators to stay in the same context while building and testing components.

You run a Reporting Object by clicking Run in the Reporting Object window. The Run option in the Reporting Object window is enabled regardless of the setting of the Reporting Object's Show only a Deferred Report property.

When selecting Run or Run Deferred, the behavior is the same as when Reporting Objects are run as Standard Reports from Domains.

Expected Behaviors of Running a Reporting Object

When you select and run a Reporting Object, the expected behavior is as follows:

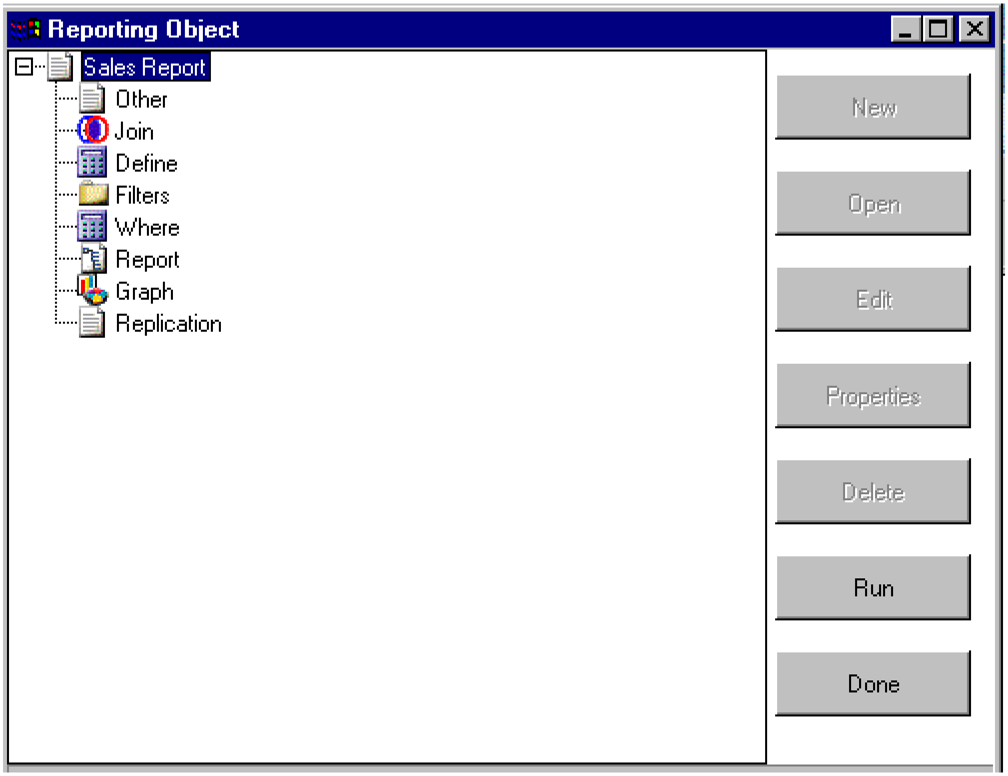
- When you define a Report *or* Graph component, all components of the Reporting Object run.
- When you define a Report *and* Graph component, an HTML page displays that enables you to select which one to run.

- When you define filters in a Reporting Object, an HTML page displays that enables you to select from the defined filters of the Reporting Object.
- When you define parameters in a report or graph and the Reporting Object's Prompt for Parameters property is specified, an HTML page displays that prompts you for parameter values.
- Reporting Object components are validated prior to run time. This means that errors are found and corrected more easily since errors in individual components are detected prior to run time.

Note: Run is disabled for all the remaining Reporting Object components (Other, Join, Define, Filters, Where, and Replication).

Components of a Reporting Object

You access the components through the Reporting Object window, which WebFOCUS displays when you open a Reporting Object.



When creating Reporting Objects, you should consider what types of components you want to include. Reporting Objects can contain different components, which WebFOCUS executes in the following order: Others (procedures you code in the text editor), Joins, Defines, Filters, Where statements, Report templates, Graph templates, and Replications.

The Replication component of a Reporting Object allows a WebFOCUS Managed Reporting Administrator or Domain Admin to access the Replication tool. An Administrator uses the Replication tool to select the individual field names and to control the data values available for a WebFOCUS Developer Studio user to replicate. You can include any combination of these components in your Reporting Objects.

Users do not see the Where statements, defines, or joins you create; these are issued automatically every time a user accesses the Reporting Object. You can, however, create reports and graphs, including headers, footers, and styling features, and provide them as templates for users' reports. Users then create their own reports and graphs from the templates you specified.

Note: You must click *Done* in the Reporting Object window to save any changes you make to a component in the Reporting Object folder. If you close the dialog box in any other way, WebFOCUS will not save your work.

Other Component

Select the Other component to open the text editor, where you can define components not represented by a Reporting Object component. See the *Creating Reports With WebFOCUS Language* manual for more information about using the WebFOCUS language to code procedures.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Joins

A join is a temporary connection between two or more data sources that share at least one common field. Once you join two data sources, each time WebFOCUS retrieves a record from the first data source (host file), it also retrieves the matching records from the second data source (cross-referenced file). For a full discussion about joining data sources, see *Creating Reports With Graphical Tools.*

You use the Join Tool to link data sources. The Join Tool provides a graphical method for creating and manipulating joins. Instead of coding a join using the WebFOCUS language, you use the Join Tool to drag a field from one data source and link it to a field in another data source.

When you access the Join Tool, the window displays a field list for the data source associated with the Reporting Object (which you specified when you created the Reporting Object) and a field list for any data source you add to the window. An icon representing the data type displays before each field name in the Master File.

Note: When joining two FOCUS data sources, the cross-referenced file field must be indexed.

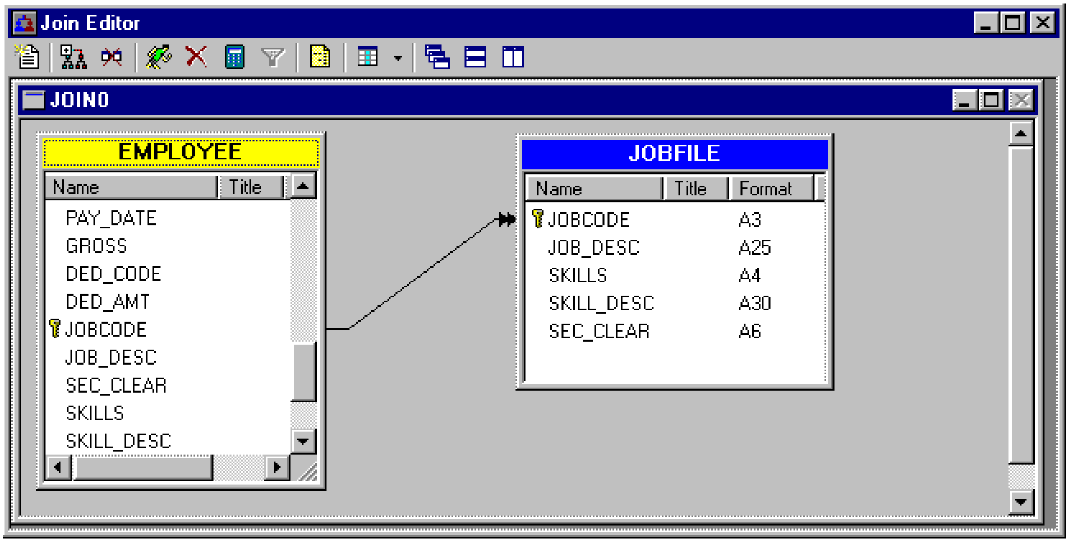
Creating a Join With Graphical Tools

The Join Editor provides a graphical method for creating and manipulating Joins. You must specify a host file, then a cross-referenced file to create a join.

You create the Join as an object, separate from any other object or procedure. You are responsible for placing the Join object in the correct position within your procedure (that is, before a Define, Report, or Graph), and for running it. The Join remains active for the entire session, unless you explicitly clear it.

You can open the Join Editor from either the toolbar or from a reporting tool. Before the tool opens you will be asked to select a host file.

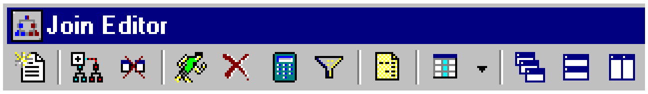
The Join Editor displays both files and, ordinarily, a default Join:



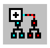
- A Join is represented by a connector line from the host Join field to the cross-referenced Join field. A single arrow indicates a unique Join; a double arrow indicates a non-unique Join.

- Developer Studio automatically creates a Join between the files if they both have fields with the same formats (and, for a FOCUS file, if the cross-referenced field is indexed). You can use the default Join as it is, or you can customize the Join. If multiple fields have the appropriate format, the default Join is not created unless one of these fields has the same name as the host field. In this case you must specify a join explicitly. See *Customizing a Join* on page 3-12 for details.
- A host file is indicated by a yellow caption. A cross-referenced file is indicated by a blue caption.
- Indexed fields have a key icon in front of the field, and virtual fields have a define icon in front of the field. A virtual field is a temporary field that does not actually exist in the data source; its value is computed based on an expression you write. Once created, the virtual field is treated as if it were a field in the data source. For more information see Chapter 5, *Creating Temporary Fields*.
- By default, the list of field names in each data source displays in the Join window. You can change the display to show the following additional information about each field, if it is available in the Master File: alias, format, title, and description.

Reference Join Editor Toolbar



When you access the Join Editor a toolbar opens below the title bar. You can access the following commands from the toolbar:

Button	Command	Description
	New Join	Creates additional concurrent joins. See *Customizing a Join* on page 3-12 for more information.
	Add File	Selects a cross-referenced file to join to the host file you have already selected. See *How to Create Additional Joins* on page 3-13 for more information.
	Clear Join	Launches the Join Clear window.
	Run Join	Runs a join.
	Delete	Deletes a selected object (table or join).

Button	Command	Description
	Define Field	Launches the Join Define in File dialog box to create a virtual field in the host file.
	Create/Edit Selection	Launches the WHERE Expression Builder to create WHERE criteria and change the join type to a conditional join.
	Show/Hide Source Code	Shows or hides the FOCUS code generated by the Join Editor.
	Show/Hide Field List Columns	Shows or hides the following field descriptions: • Name • Alias • Title • Description • Format
	Cascade	Creates a cascade view of multiple joins (default).
	Horizontal Tile	Splits the Join Editor horizontally when working with multiple joins.
	Vertical Tile	Splits the Join Editor vertically when working with multiple joins.

Procedure How to Create a Join

If you want to define a Join in a procedure:

Right-click the procedure in the Procedures folder and choose *Open* from the shortcut menu. The Procedure (FOCEXEC) window opens.

1. Click and hold a component connector (yellow diamond) at the point where you want to include the virtual field in the procedure, then click the *Join* button on the component connector toolbar.
2. The File Description List dialog box opens.
3. Choose a Master File for the data source you wish to use as your host file. Click *OK*. The Join Editor opens showing a Fields window for the host file that you selected.

4. To add a cross-referenced data source to the Join, click the *Add Files* button on the toolbar or choose *Add Files...* from the File menu.

   The File Description List opens again.

   Select a cross-referenced file.

5. Click *OK*.

6. A default Join is created if the host and cross-referenced files share appropriate fields. If a default Join is not created, follow the instructions in *Customizing a Join* on page 3-12 to create your own.

7. If you want to make a Join available for use with all procedures during your session, issue the JOIN command from the Command Console. The JOIN is retained for the duration of the session or until you change it. See Chapter 19, *Using the Command Console,* in *Developing Reporting Applications* for details.

Procedure How to Add Information About Fields to Join Field Lists

The Field list for each data source being joined displays the field names by default. To help you build meaningful joins you can add information about the listed fields.

With the Join Editor open, click the *Show/Hide Field List Columns* button on the toolbar or click the View menu.

Select any or all of the following items: Name, Alias, Title, Description, Format. A check mark displays next to your selections. Name and Descriptions are checked by default.

The selected information categories appear as headings in the field list for each joined file. Details will appear if the corresponding information is included in the Master File.

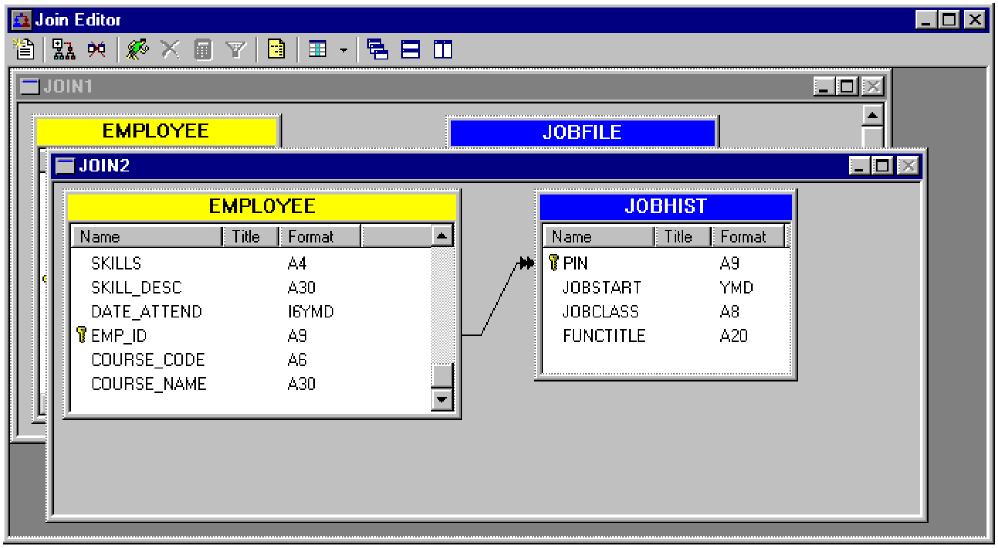
Expand the window to see the additional field list columns.

Saving a Join

When you exit the Join window, you are prompted to save your work. If you save the Join, it is added to the procedure in which it has been created. See *How to Create Additional Joins* on page 3-13.

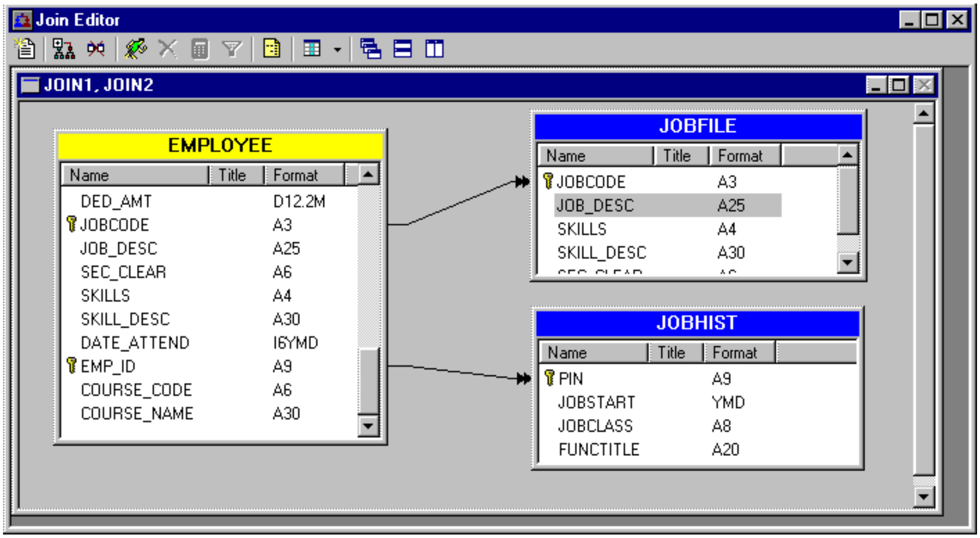
Example Rearranging Saved Joins

The Join Editor may automatically rearrange your saved Joins to display Joins that use some of the same files in one panel of the Join window. The following two Joins share a host file:



Tip: If the field names you wish to join are different, as in the join for EMP_ID and PIN in the right panel above, you must drag and drop EMP_ID or PIN to make the connection.

Note: If you close the Join window and then reopen it, the two Joins display in the same panel:



Customizing a Join

You can customize an existing Join by changing the files or fields involved. If no default Join was created, you can use the same technique to specify a connection explicitly.

You can also change the Join name, make the Join unique, use a virtual field as the Join field, and add tag names to the Join files.

Procedure How to Remove a File From the Join

1. Click on the Fields window of the file you want to remove.
2. Click the *Delete* button on the toolbar or press the Delete key on your keyboard.

If you delete the host file, all cross-referenced files are automatically deleted.

Procedure How to Delete a Join

To delete the existing Join:

1. Right-click the Join connector line.
2. Select *Delete* from the shortcut menu.

You can also select the Join connector line and click the *Delete* button on the toolbar.

The files remain in the window with no connector line between them.

Procedure How to Specify Join Fields

To create your own Join (after deleting the existing Join, if necessary):

1. Select a field in the host file panel.
2. Click and hold the selected field.
3. Drag the selected field from the host file panel onto the matching field located in the cross-referenced file panel.
4. Release the mouse button.

A Join connector line displays.

Reference Usage Notes for Specifying Join Fields

- You can multi-select fields in the host file to join to a single field in the cross-referenced file when both are FOCUS files. For other file types (for example, EDA, Oracle, DB2, and so on) you must join a host field to a cross-referenced field, one pair at a time.
- For non-FOCUS joins, you can join a maximum of 16 fields from each file.

Procedure How to Create Additional Joins

You can leave the Join editor window open and create another Join by:

- Clicking the *New Join* button.

  or

- Choosing *New Join* from the File menu.

You can define up to 16 concurrent Joins.

Procedure How to Make a Join Unique

By default, each Join is non-unique.

To make the Join unique:

1. Right-click the Join connector line.
2. Deselect *Join to All* from the shortcut menu.

Changing the Join Name

A default name is automatically assigned to each Join.

You can use the Join name to later clear the Join and to prevent another Join from overwriting it. If you remove the Join name completely, any subsequent unnamed Join will overwrite this Join.

Procedure How to Change or Remove the Default Join Name

1. Right-click the Join connector line and select *Join Name* from the shortcut menu. The Join Name dialog box displays the default Join name.
2. Edit or delete the name in the Join Name box and click *OK*.

Note: The following words cannnot be used as a Join name: ALL, AND, AS, IN, JOIN, TAG, TO, WITH.

Procedure How to Display Current Join Structures

To display a list of joined data sources, select the following query subject in the Query tool or issue the command from the Command Console:

? JOIN

This displays every Join currently in effect.

Virtual Fields (DEFINE Statements)

A virtual field is a field whose value is not stored in the data source but can be calculated from the data that is there. A virtual field takes up no storage space; it is created only when a user accesses the Reporting Object that includes the virtual field.

You use the Define Tool to create a virtual field. Using this tool, you specify the virtual field's name, format, and the expression that defines the field. An expression enables you to combine fields, constants, predefined functions, and operators into an operation that produces a single value. For more information about defining fields, see *Creating Reports With Graphical Tools*.

When you define a virtual field, you must specify a field format type, length, and appropriate display options.

Procedure How to Create a Virtual Field

1. Expand the Reporting Object in which you want to add a virtual field.
2. Right-click the Define folder and select *Open* in the Reporting Object window.

   The Field Creator dialog box opens. The Fields list window opens by default whenever you access the Field Creator.
3. Enter the name of the virtual field in the Field box.
4. Enter a field format in the Format box.

   For detailed information about field formats, see *Field Formats* on page 3-15.
5. Enter the expression that defines the virtual field in the input box below the field name.
6. Click *OK* to save the virtual field, close the Field Creator, and return to the Define Tool.
7. Click *OK* in the Define Tool window to close the tool.

   You return to the Reporting Object window. The virtual field now appears in the field list when a user accesses this Reporting Object.

If you have finished working with the components of the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Procedure How to Edit a Virtual Field

1. Expand the Reporting Object in which you want to edit a virtual field.
2. Right-click the Define folder and select *Open* in the Reporting Object window.
3. Select the virtual field you want to edit from the Defined Fields tab.

4. Make changes to the field’s expression or format and click *OK*.

The Field Creator dialog box closes and you return to the Define Tool.

5. Click *OK* to exit the Define Tool.

WebFOCUS saves the change and returns you to the Reporting Object window

If you have finished working with the components of the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Procedure How to Delete a Virtual Field

1. Expand the Reporting Object in which you want to delete a virtual field.

2. Right-click the Define folder and select *Open* in the Reporting Object window.

3. Click the Defined Fields tab and select the virtual field you want to delete.

4. Click the *Delete* button.

5. Click *OK* to verify the deletion.

WebFOCUS deletes the virtual field and returns you to the Reporting Object window.

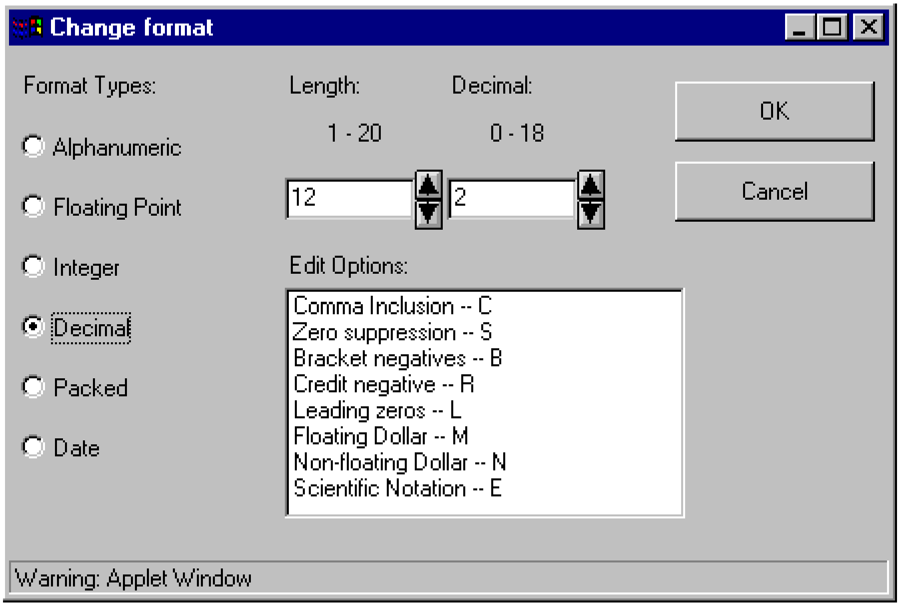
If you have finished working with the components of the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

Field Formats

You must specify a field format for every virtual field you create. You assign a format based on the values that the virtual field will hold. The field format specifies the following information:

- The field type, which indicates whether the field value will contain an alphanumeric, numeric, or date value.
- The field length, which determines the maximum number of positions an alphanumeric or numeric field value can contain.
- Options that affect how a numeric or date field value will appear in reports.

You can specify the format type, length, and appropriate display options in the Format input box in the Define Tool dialog box, or you can use the Change format dialog box to assist you in defining the field format.



In this dialog box, you can select a format's attributes from list boxes instead of entering the required syntax.

Procedure How to Specify a Field Format

1. Click *Format* in the Field Creator window to open the Change format dialog box.
2. In the Format Types list, select the radio button to the left of the format type you want to assign to the virtual field.

   The default length for the format type appears in the Length box.
3. If you want to change the format length, type a new value in the Length box and the Decimal box.

   Note: The Decimal box appears only for the Floating Point, Decimal, and Packed format types.
4. If the Format Type is numeric or date, specify any report display options.
   - For numeric format types, select one or more options in the Edit Options list box.
   - For the Date format type, type the display option code in the Date Format box.
5. Click *OK*.

The Change format dialog box closes and you return to the Field Creator. The virtual field will have the field format you just specified.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Field Format Types

There are three types of field formats: alphanumeric, numeric, and date.

- **Alphanumeric.** Assigns the Alphanumeric format to values composed of any combination of alphabetic, numeric, or special characters, up to 256 characters in length. You can concatenate alphanumeric values, but you cannot perform mathematical operations on an alphanumeric field, even if the field's value is composed of numeric characters.
- **Numeric.** Assigns a numeric format to values composed of the digits 0 through 9 and a minus sign or a decimal point. You can perform mathematical operations on numeric values. There are four specific numeric formats:

Integer (I)	Integer format can consist of a maximum of 11 positions, counting the digits and an optional minus sign. Use this format for whole number values; the value cannot contain a decimal point.
Floating Point (F)	Floating Point format can consist of a maximum of 9 positions, counting the digits, a minus sign, and a decimal point. Use this format for whole numbers or fractional values. For larger numbers, use the Decimal or Packed formats.
Decimal (D) and Packed (P)	Decimal and Packed formats can consist of a maximum of 20 positions, counting the digits, minus sign, and a decimal point. Use this format for whole numbers or fractional values that are larger than the maximum value for a Floating Point value.

  For numeric formats, you can also specify how the field will appear in reports. Note that the characters added by these display options count toward the maximum number of positions a field can hold. For more information on numeric format options, see the *Describing Data With WebFOCUS Language* manual.

- **Date.** Assigns the Date format to values that represent a date or date component. You can add or subtract values in the date format.

  For Date formats, you can specify how the values that represent a date or date component are stored and displayed. For more information on date format options, see the *Describing Data With WebFOCUS Language* manual

Filters

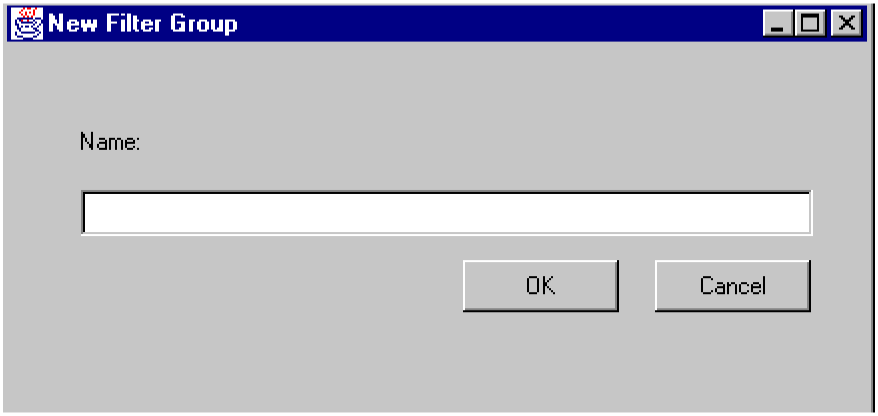
Filters enable users to quickly select predefined criteria that limit data included in a report or graph. Filters are selection criteria (WHERE statements) that you create for users, who then select the filters needed to limit the data in a report or graph, without having to create their own selection criteria.

In order to create a filter, you must create the filter group and define the filters that make up the group.

Procedure How to Create the Filter Group

1. Expand the Reporting Object to which you want to add the filter group.
2. Right-click the Filters folder and select *New Group* in the Reporting Object window.

   The New Filter Group dialog box opens:

3. Type a descriptive name for the filter group folder in the Name box.

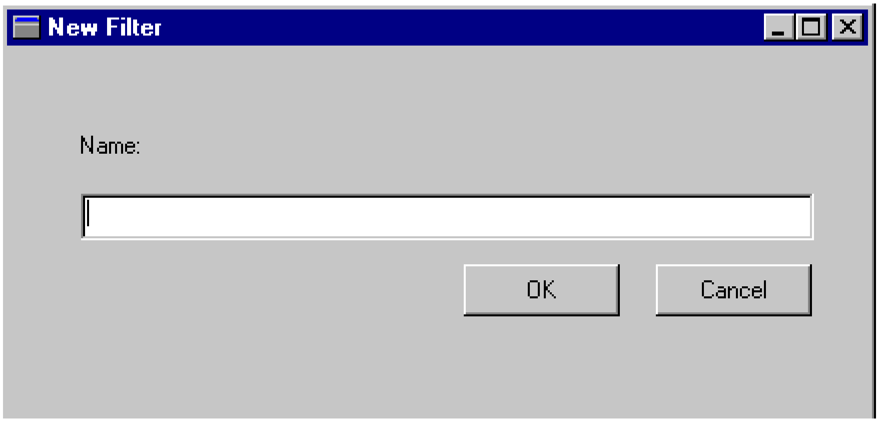
   You should make the filter group name as explicit as possible, because your users depend on this name to select the correct filter to apply to their reports.
4. Click *OK*.

   You return to the Reporting Object window. The filter group folder appears below the Filter component folder.

Procedure How to Define the Filter

1. Right-click the filter group folder to which you want to add a filter and select *New Filter.*

   The New Filter dialog box opens:

2. Type a descriptive name for the filter in the Name box and click *OK*.

   You should make the filter names as explicit as possible, because your users depend on these names to select the correct filter to apply to their reports.

   The Expression Builder dialog box opens.

3. Use the Expression Builder to build the filter.

   For details about building the filter expression, see *Using the Expression Builder* on page 3-20.

4. When you have created the filter, click *OK*.

   WebFOCUS saves the filter and returns you to the Reporting Object window. The new filter appears below the filter group folder.

If you have finished working with the components of the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Using the Expression Builder

To define a filter, you use the Expression Builder dialog box to specify a field, a relational operator (for example, Is Equal to, Is Greater Than), and a Compare Type.

The Compare Type you select determines the value you enter. The filter definition compares this value to the values stored in the selected field. If the relation between the field value and the specified value is true, the field value appears in the report.

You can select one of the following Compare Types:

- **Value.** Compares a literal data value or an actual data source value to the value of the selected field.
- **Parameter (Variable).** Compares a user-entered value, passed through the variable, to the value of the selected field.
- **Another Field.** Compares the value of a data source field to the value of the selected field.

Procedure How to Build an Expression for a Filter

1. Select a field in the Fields list box.
2. Select a relational operator from the Relations box.
3. Select a Compare Type.
4. Specify a value to compare to the selected field.

   Enter a value in the Value box, or click the *Values* button to choose from a list of actual values. This value depends on the Compare Type you selected in the previous step.

If you selected...	Then ...
Value	Enter a literal value or click the *Values* button to select from a list of actual data source values for the selected field.
Parameter (Variable)	Specify the name of the variable in the Value box.
Another Field	Select a field in the Fields list box.

5. When you have created the filter, click *OK*.

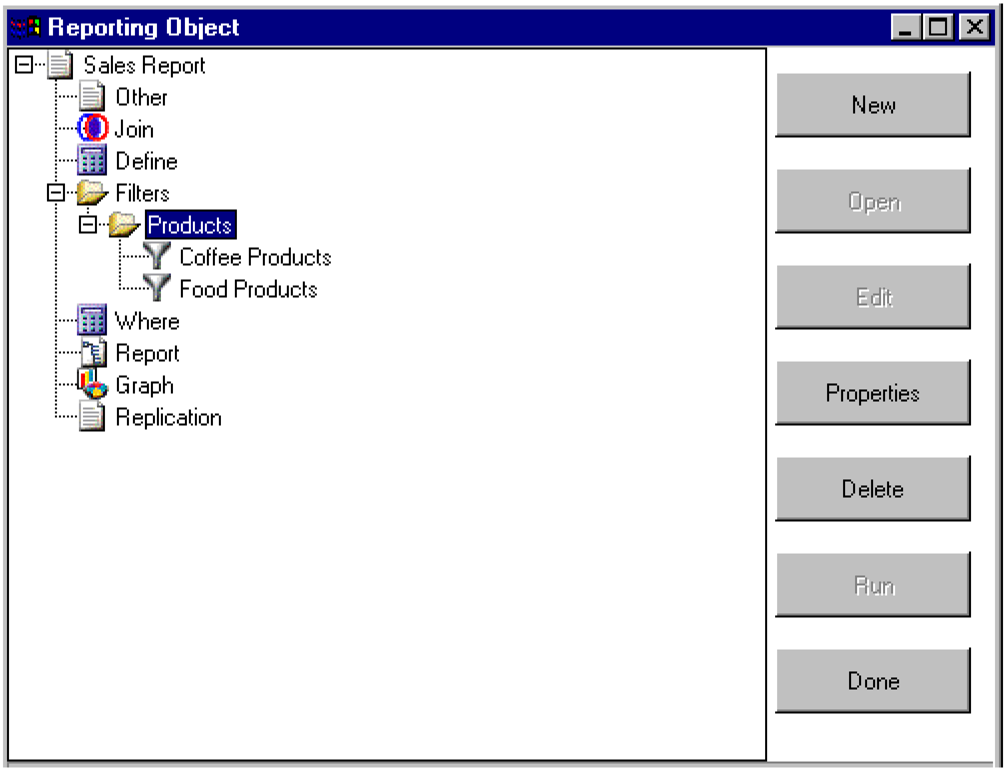
   WebFOCUS saves the filter and returns you to the Reporting Object window. The new filter appears below the filter group folder.

If you have finished working with the components of the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Example Creating Two Filters

Your manager wants users to be able to ascertain which store products are the best sellers. Instead of defining selection criteria, which restrict the data a user can access, you will create two filters: one for coffee products and the other for food products. Users can then select either Coffee Products or Food Products to see which items sold more.



The following examples illustrate how to create these filter groups and filters. By using these examples as a guideline, you can create multiple filter groups that contain multiple filters. Your users can then combine filters from different groups to create complex selection criteria that allow only specific data in a report or graph.

Note: To perform these examples, choose a Reporting Object that accesses the ggsales data source.

Example Creating the Salary Filter Group

To define a filter group for Product filters:

1. Expand the Reporting Object to which you want to add filters.
2. Right-click the Filters component folder and select *New Group*.

   The New Filter Group dialog box opens.
3. Enter Products in the Filter Group Name box.
4. Click *OK*.
5. A group folder labeled Products appears below the Filters folder.

Example Creating a Filter for Coffee Products

1. Right-click the Products folder and select *New Filter.*

   The New Filter dialog box opens.
2. Enter Coffee Products in the Filter Name box and click *OK*.

   The Expression Builder dialog box opens.
3. In the Expression Builder dialog box, perform the following:
   a. Select *Products* in the Fields list box.
   b. Select *Is EQUAL TO* in the Relations list box.
   c. Click *Values*. Select *Cappucino*, *Espresso*, and *Latte* and click *Add*.
4. Click *OK*.

   You return to the Reporting Object window.

   The Coffee Products filter appears below the Products group folder.

Example Creating a Filter for Food Products

1. Right-click the Products folder and select *New Filter.*

   The New Filter dialog box opens.
2. Enter Food Products in the Filter Name box and click *OK*.

   The Expression Builder dialog box opens.
3. In the Expression Builder dialog box, perform the following:
   a. Select *Products* in the Fields list box.
   b. Select *Is EQUAL TO* in the Relations list box.
   c. Click *Values*. Select *Biscotti*, *Scone*, and *Croissant* and click *Add*.

4. Click *OK*.

   You return to the Reporting Object window.

   The Food Products filter appears below the Products group folder.

Selection Criteria (WHERE Statements)

You limit the data a user can report from by defining selection criteria, which restrict data to only the records that meet conditions you specify. You use the Expression Builder to define selection criteria.

Selection criteria, like filters, limit the amount of data a user can access to build a report. When a user opens a Reporting Object that contains selection criteria, the selection criteria runs and excludes those data values that do not meet the criteria. A filter, on the other hand, runs only when a user selects the filter in the Managed Reporting Domains environment.

Procedure How to Create Selection Criteria

1. Expand the Reporting Object in which you want to add the selection criteria.
2. Right-click the Where folder and select *Open*.

   The Where Assistant dialog box opens.
3. Click *New* to launch the Expression Builder.
4. Use the Expression Builder to build the selection criteria.

   For details about building the selection criteria expression, see *Using the Expression Builder* on page 3-20.
5. Click *OK* to save the selection criteria and return to the Reporting Object window.

   If you have finished working with the components of the Reporting Object, remember to click the *Done* button on the Reporting Object window to save the changes.

   Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Example Creating Selection Criteria

Your manager wants to allow users to report only on the information relating to your Management Information Systems (MIS) department. To restrict the data, you will create selection criteria, or a WHERE clause, for the object.

Note: For this example, use a Reporting Object that accesses the Employee data source.

1. Expand the Reporting Object to which you want to add the selection criteria.
2. Right-click the Where folder and select *Open*.

3. Click *New* in the Where Assistant dialog box.

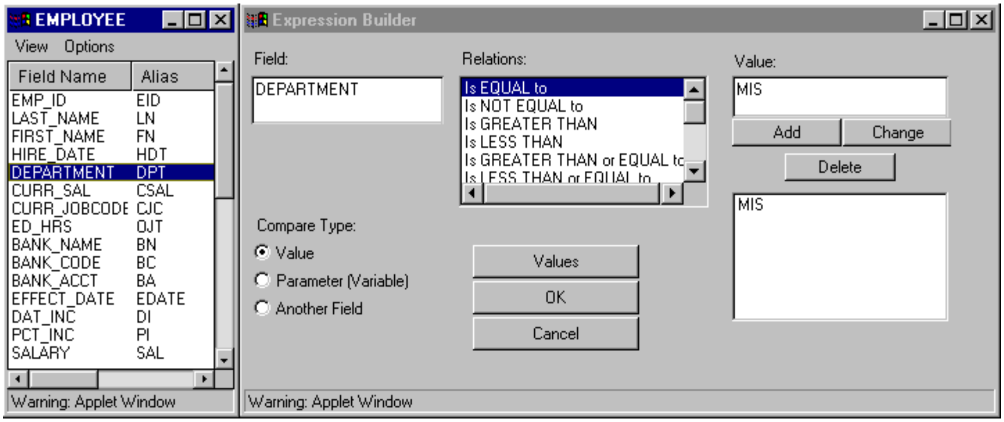
   The Expression Builder dialog box opens.

   a. Select *DEPARTMENT* in the Fields list.

   b. Select *Is EQUAL to* in the Relations list box.

   c. Enter *MIS* in the Value input box.

   The Expression Builder should resemble the following:



4. Click *OK* to save the selection criteria and return to the Reporting Object window.

Report Component

The Report Component lets you create a report template for your users. You use Report Assistant to create the report and save it as a Reporting Object. When a user selects the Reporting Object in the Domains reporting environment, Report Assistant opens and displays the report template you created. Users can modify the template to create a report that suits their needs and then save the new report.

If you have finished working with the components of the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

Caution: Do not use the Report Painter to create a report template. The Report Painter uses FOCUS code that the Report Assistant cannot process. Report Assistant is the only reporting tool that is available to end users.

Graph Component

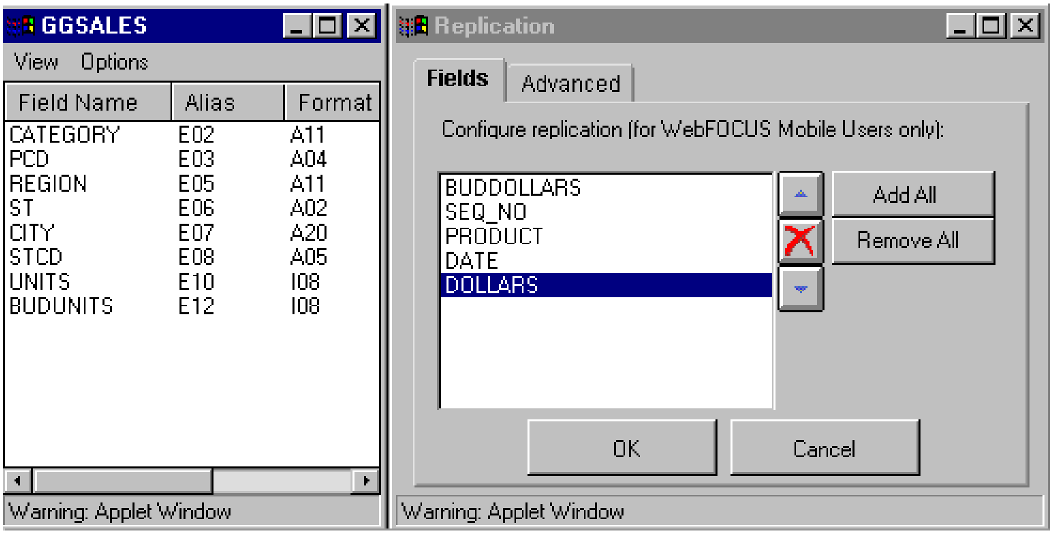
The Graph component works in the same way as the Report component, except that you create a graph template with Graph Assistant. See the *WebFOCUS Managed Reporting End User's Manual* for more information about Graph Assistant.

If you have finished working with the components of the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

Note: Syntax and error checking are not performed on the commands you enter until the Reporting Object is executed.

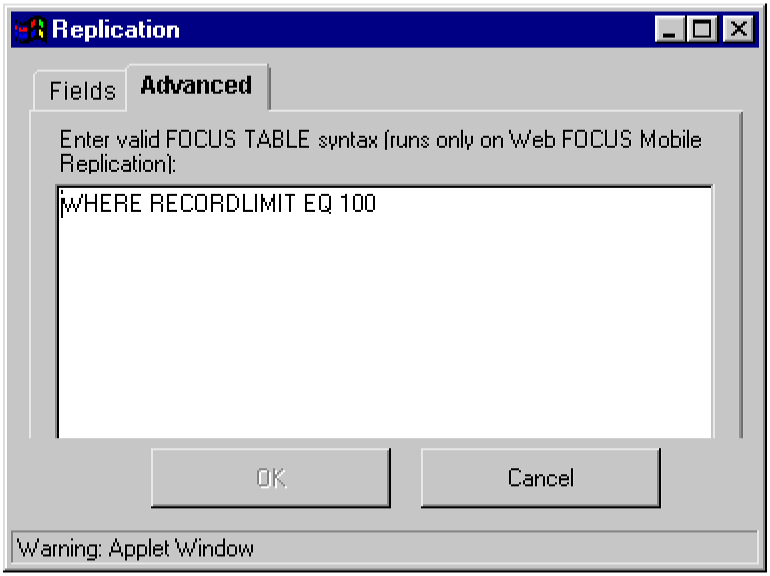
Using the Replication Tool

The Replication tool consists of the Fields List window and the Replication dialog box. The Fields List window lists the field names associated with a Reporting Object's data description. Use the Fields List window to select the individual field names that a WebFOCUS (Windows version) user can replicate to the local environment.



The Replication dialog box consists of two tabs: Fields and Advanced. The Fields tab contains the Replication List that displays field names that you have added from the Fields List window. The Advanced tab allows you to define additional FOCUS commands that limit the data values that WebFOCUS replicates.

For example, you can define a WHERE statement that limits the data values for a specific field.



When the specified parameters have been selected for a Reporting Object, WebFOCUS allows a WebFOCUS (Windows version) user to replicate:

- Field names that have been added to the Replication list.
- Data values that meet any limiting criteria specified in the Advanced tab.

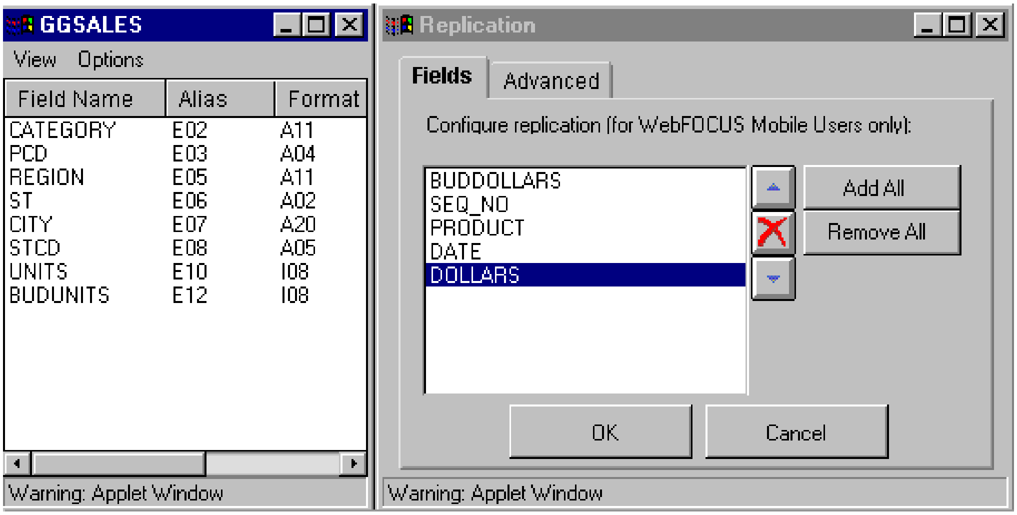
Procedure How to Use the Replication Tool

1. Expand the Reporting Object for which you want to control the replication process.

   WebFOCUS opens the Reporting Object window.

2. Right-click the Replication component and select *Open*.

WebFOCUS opens the Fields List window and the Replication dialog box:



3. To limit an end user's access to field names, you can:
   - Double-click an individual field name in the Fields List window.
   - Click *Add All* in the Replication Fields tab to add every field name in the Fields List window to the Replication Fields tab.

   WebFOCUS adds the field names to the Replication List.
4. To modify the field name list in the Replication Fields tab, you can:
   - Remove individual fields by selecting the field name and clicking *Delete*.
   - Remove all field names by clicking *Remove All*.
   - Change the position of a field name by selecting a field name and clicking the Up or Down arrow buttons.
5. To add FOCUS commands to limit the replication of data values:
   - **a.** Click the Advanced tab in the Replication dialog box.
   - **b.** Enter a valid FOCUS command in the input box.
6. Once you made your selections, click *OK* in either tab to save the replication parameters.

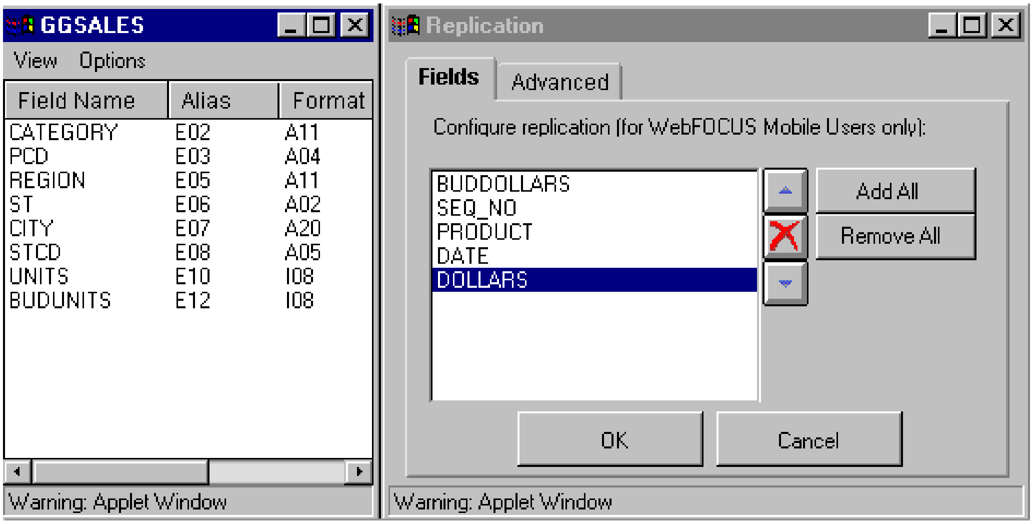
   You return to the Reporting Object window.

   Note: If you have finished working with the components for the Reporting Object, remember to click *Done* in the Reporting Object window to save the changes.

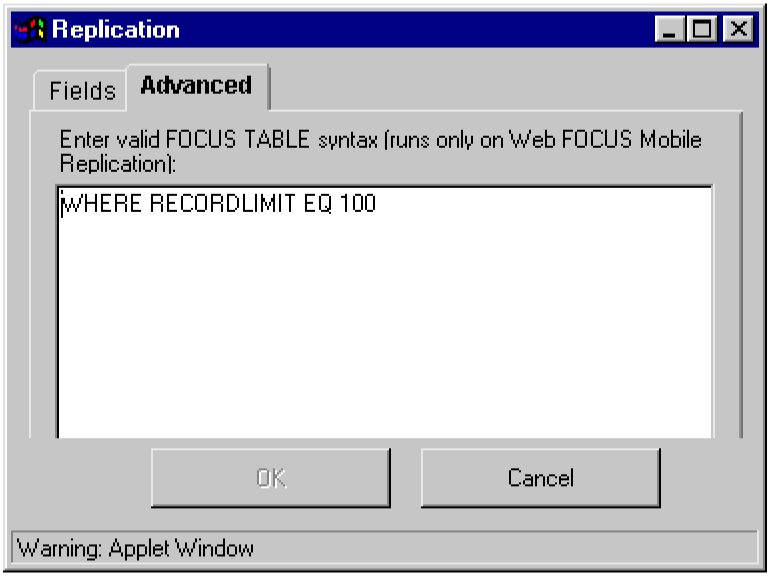
Example Working With the Replication Tool

As an Administrator, you created the Product Sales Reporting Object and want to allow WebFOCUS Developer Studio users to replicate some of the Reporting Object to their local environment. Since the Reporting Object contains a large number of fields and associated data, you want to place limits on the replication process by limiting the number of records returned and by preselecting the fields that can be replicated. You begin by opening the Product Sales Reporting Object and selecting the Replication component.

You select five fields to include in the replication process: BUDDOLLARS, SEQ_NO, PRODUCT, DATE, and DOLLARS.



You then select the Advanced tab and write a short FOCUS command, WHERE RECORDLIMIT EQ 100, to limit the number of records returned by WebFOCUS in the (Windows version) environment.



Remember that you must click *OK* in the Replication tool and then *Done* in the Reporting Object window to save your changes.

When a WebFOCUS Developer Studio user replicates the Product Sales Reporting Object, the replication process will include only the five fields that you have listed under the Fields tab and will create a condition that defines a record limit of 100.

CHAPTER 4

Publishing Reports

Topics:

- Publish Utility
- Coding a Launch Page
- Dynamic Parameter Prompting Considerations

After you have created and tested a report, you can create an HTML launch page for a report listed in the Standard Reports folder.

Publish Utility

When you publish a report, you create a *launch page*, a complete HTML file that calls the Standard Report procedure. The launch page can be a simple form containing Submit, Defer, and Reset buttons that allow users to submit the Standard Report. A more robust launch page will contain data entry fields or drop-down list boxes to supply parameter values if amper variables exist within the Standard Report. We recommend unchecking the Standard Report *Show on User's List* property so that the launch page displays to users while the report remains hidden.

Note: For more information about limitations that apply to amper variables and the Publish utility, see *Dynamic Parameter Prompting Considerations* on page 4-9.

When you create a launch page for your Standard Report, you can:

- Save the launch page in the Standard Reports folder. This enables you to continue developing and refining the launch page before making it available to users. It also enables Managed Reporting users to access the launch page from the Standard Reports tab in Managed Reporting.
- Make the launch page available via the Web. If you save the launch page as a Web page, the page is saved to the *ibi_html/publish* directory on the Web server. You can keep the page in this location or move the file to another location on the Web server. The page can be accessed by entering the URL for the page in a Web browser.

The published page that WebFOCUS creates is a template that you can further customize by manually adding any supported HTML tags and syntax. For example, the HTML launch page can include image files (.gif or .jpg files), tables, frames, JavaScript functions, and hypertext links to other Web pages. In addition, the launch pages that you create and make available via the Web can be accessed using HTML hyperlinks from other Web pages.

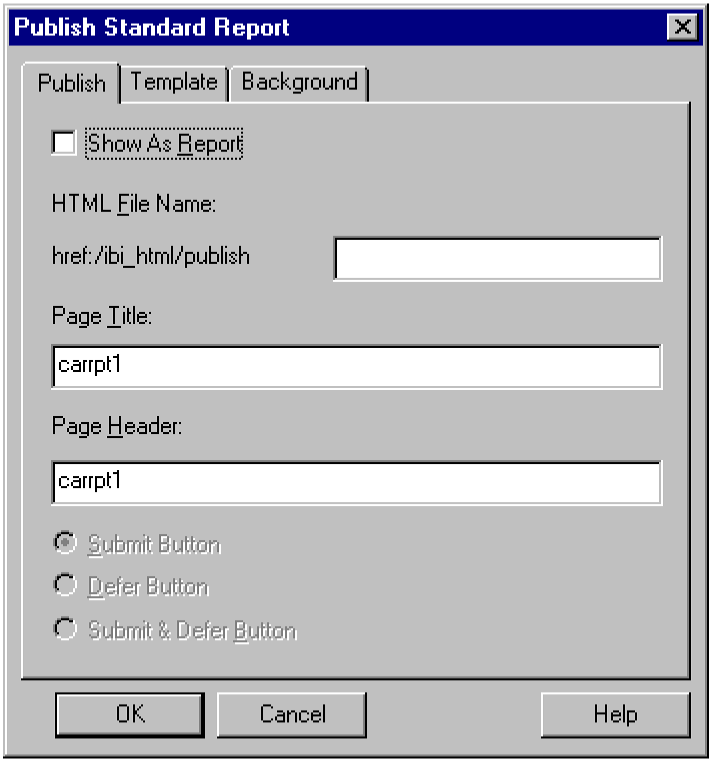
To create the launch page, use the Publish utility. The Publish utility contains the following tabs:

- Publish
- Template
- Background

Using the Publish Tab

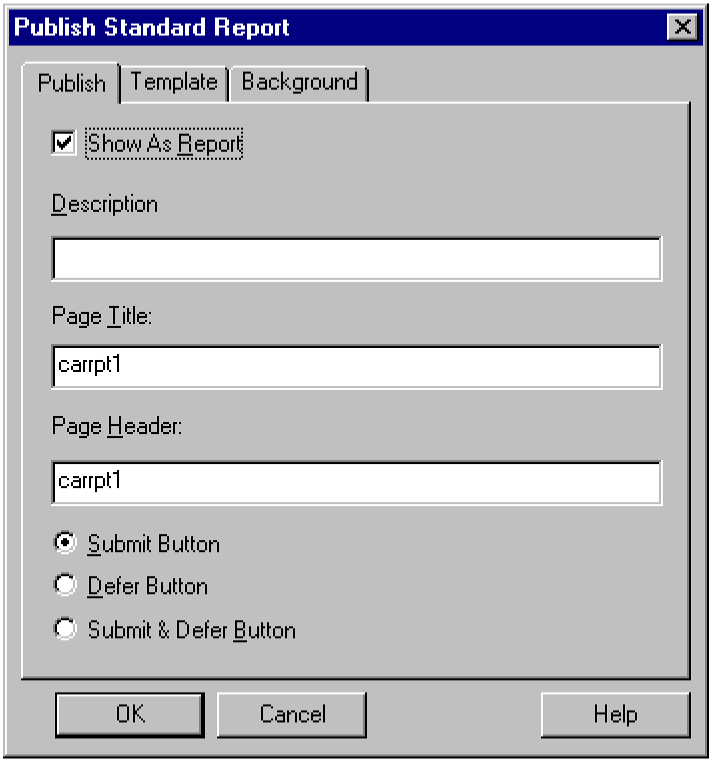
You can use the Publish tab to create a basic HTML launch page for your Standard Report. The Publish tab prompts you for the title and the header of the launch page.

To make the launch page available via the Web, leave the Show as Report check box unchecked.



Note: The Submit Button is selected by default. The Defer Button and the Submit & Defer Button are only available when you publish a launch page as a Standard Report.

You can save the launch page as a Standard Report so that users can access the page from within the Domains reporting environment. Use the Publish tab to specify whether you want to publish a Submit button, a Defer button (for deferred reports), or a Submit and a Defer button. WebFOCUS uses the Standard Report's name as the default entries in the Page Title and Page Header fields. However, you must supply the Description that displays as the Standard Report.

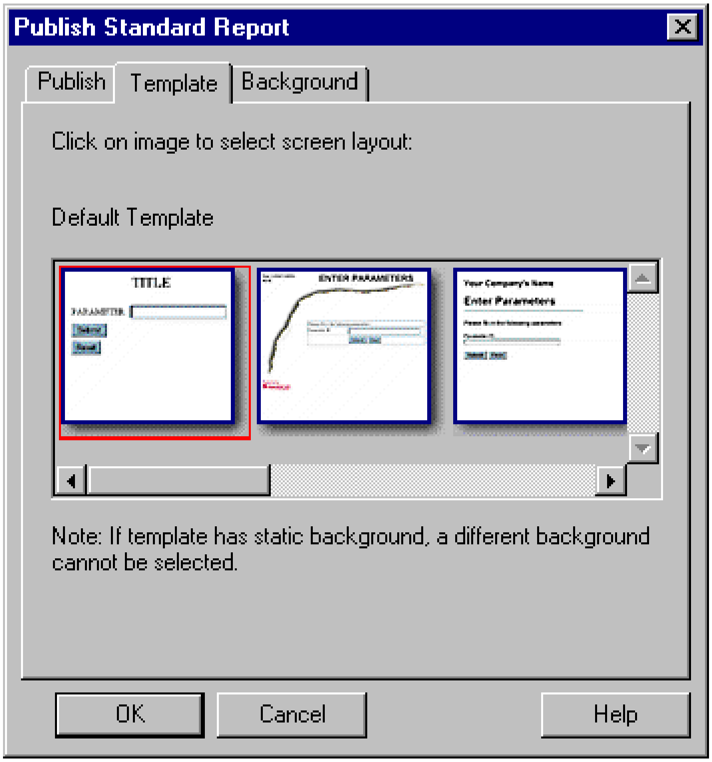


If a Standard Report has the *Only run as a Deferred Report* property selected, the report cannot be published outside Managed Reporting, and the Defer Button is selected by default.

Note: For more information about Standard Report properties, seeChapter 2, *Creating Domains and Standard Reports*.

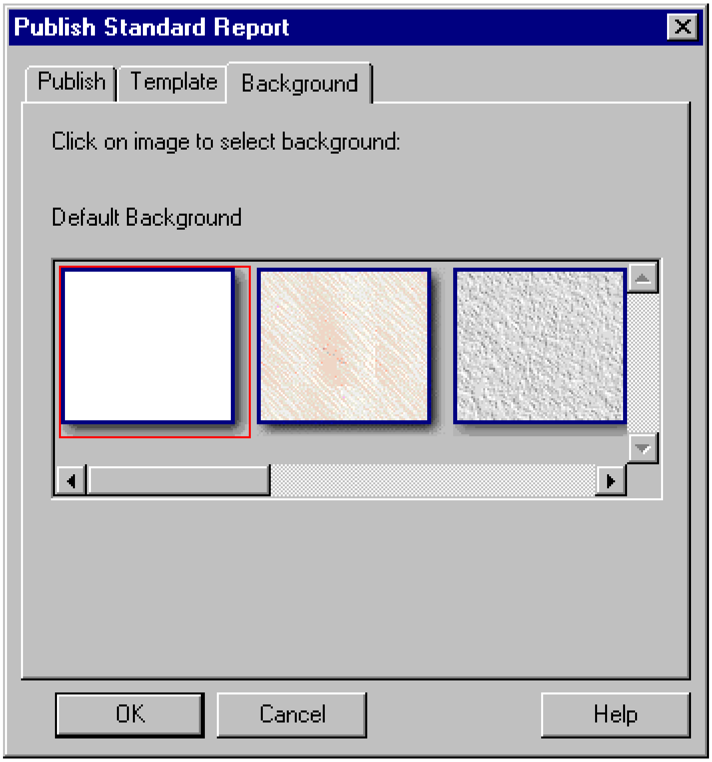
Using the Template Tab

The Template tab contains predefined HTML screen layouts. You use the horizontal scroll bar to view a thumbnail image of each template. When you decide on a template, simply click its image.



Using the Background Tab

The Background tab contains predefined images that appear in the background of the launch page. You use the horizontal scroll bar to view a thumbnail image of each background. When you decide on a background, simply click its image.



Note: WebFOCUS will not apply a background to a template that includes a static background. (There are several types of static backgrounds from which you can choose in the Template tab.) When a template with a static background is selected, the Background tab is disabled.

Procedure How to Publish a Standard Report

1. Expand the Standard Reports group folder that contains the report you want to publish.
2. Right-click the Standard Report and select *Publish*.

   Note: The Show as Report check box is not selected by default.

3. To save the launch page to the /ibi_html/publish directory:
   a. Enter a file name for the page. WebFOCUS adds the .htm extension to the file name.
   b. Enter a title for the page in the Page Title input box. If you do not specify a title, WebFOCUS uses the original report's name as the title.
   c. Enter a header for the page in the Page Header input box. If you do not specify a header, WebFOCUS uses the original Standard Report's name as the header.

   Caution: Make sure you supply a unique name for the published report. If your report has the same name as an existing published report, WebFOCUS overwrites the existing published report.
4. To save the launch page as a Standard Report and allow users to access the page from within the Domains reporting environment:
   a. Click the *Show as Report* check box. This enables the launch page options that display in the lower left hand corner. The Submit button is enabled by default.

      To create a Defer button on your launch page, click *Defer Button*.

      To create a Submit button and a Defer button on your launch page, click *Submit & Defer Button*.

      Note: If you select Defer Button or Submit & Defer Button and uncheck Show as Report, the radio buttons will be reset to their default setting (Submit button).
   b. Enter a description for the page. WebFOCUS uses the first eight characters of the description and adds the .htm extension for the page's file name.
   c. Enter a title for the page in the Page Title input box. If you do not specify a title, WebFOCUS uses the original Standard Report's name as the title.
   d. Enter a header for the page in the Page Header input box. If you do not specify a header, WebFOCUS uses the original Standard Report's name as the header.
5. Click the Template tab and select a template. (This step is optional.)

   To select a template, position the red selection box around the template image by clicking the image.
6. Click the *Background* tab and select a background. (This step is optional.)

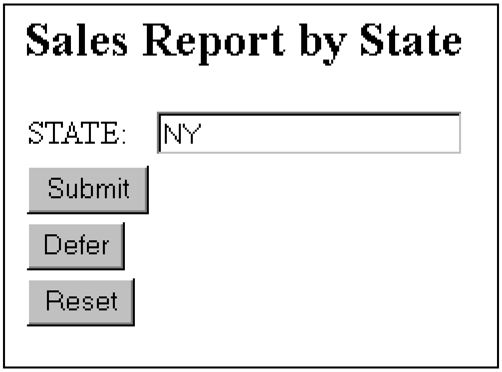
   To select a background, position the red selection box around the background image by clicking the image.
7. Click the *Publish* tab and click *OK*.

If you did not check the *Show as Report* box, WebFOCUS saves the page to the /ibi_html/publish directory. Users can run this report by entering the URL for the page in a browser.

If you did check the *Show as Report* box, WebFOCUS saves the page to the Domain's app directory. Users can run this report from the Standard Reports tab in the Domains View.

Example Running a Published Standard Report

The following displays a published launch page of a Standard Report called Sales Report by State. You are prompted to enter a value for the state field (for example, NY). Since the Show as Report check box and the Submit & Defer Button were selected, you can submit the report to run immediately or as a deferred report.



Coding a Launch Page

When the Publish feature is used to create HTML Launch pages, special HTML and Javascript code is put onto the page. This code controls the behavior of the page's Submit and Defer buttons, which may appear either alone or together on the page depending on how it was created. If you plan to modify the pages created by the Publish utility or plan to create your own, take some time to study the code on these pages. Publish a page with the "Show as Report" option checked for each of the following cases: Submit button only, Defer button only, Submit and Defer buttons. By reviewing the code on these three pages you will be able to understand how to make pages that are intuitive to your users.

Dynamic Parameter Prompting Considerations

Dynamic parameter prompting does not support the following:

- Parameters in an INCLUDE file when the INCLUDE is coded as -INCLUDE &FILENAME.
- INCLUDE files that reside on the WebFOCUS Reporting Server. The INCLUDE files must reside in the Managed Reporting Repository on the Web server to be resolved by the WebFOCUS Client.
- Remote requests. If the procedure on the WebFOCUS Reporting Server contains parameters, the WebFOCUS Client will not be able to resolve them. For example,

```
-REMOTE BEGIN
EX FILENAME
-REMOTE END
```

Dynamic parameter prompting ignores:

- Amper variables created with the -SET command. A value has been explicitly specified.
- Global amper variables (&&NAME).

CHAPTER 5

User Management

Topics:

- User Management Tree Object
- Managing a User's Reports

The User Management tree object enables Managed Reporting Administrators to view user's reports. All types of reports are displayed, including My Reports, saved deferred output, and distributed ReportCaster output. Managed Reporting Administrators can open, edit, run, save, and delete Managed Reporting user's reports. Saved and distributed output can be deleted or have its properties changed. Both active and inactive users are displayed and each user displays regardless of whether they have created any reports.

User Management Tree Object

The User Management feature enables the Managed Reporting Administrator to access each user's reports. Each user displays regardless of whether they have created any reports. A folder is listed under each user, and contains the domains to which the user has access.

The User Management feature displays only for Managed Reporting Administrators. It does not display for Managed Reporting Domain Admins.

When you open a folder, all types of user reports display, including My Reports, saved deferred output, and distributed ReportCaster output. Opening a user's domain shows either their report folders, which can be opened or a message that no user reports were found.

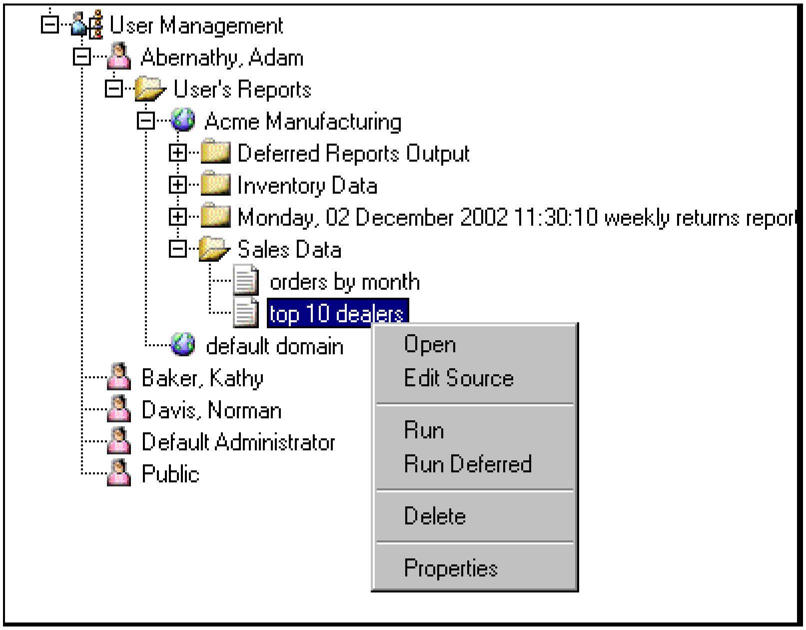
The Managed Reporting Administrator can access reports made by inactive users. This is so they can easily delete or review these reports.

Managing a User's Reports

From the User Management tree object, Managed Reporting Administrators can perform the following tasks:

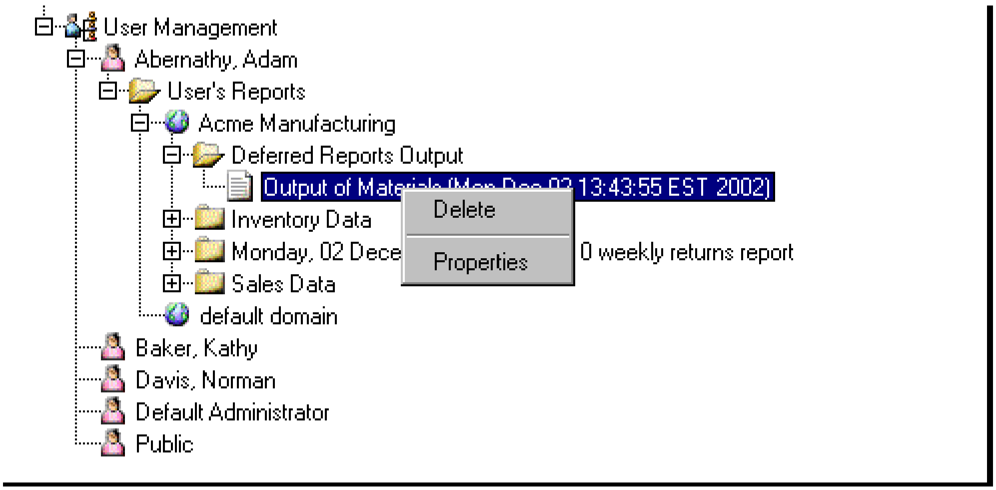
- Open the report. It displays in Report Assistant or Graph Assistant just as it does for the user. From there, you can make changes and either:
  - Save to the same file, or
  - Save As... a new file name (recommended because this leaves the original report untouched, which the user can view for comparison).
- Edit the source code for the report directly with the Java Editor. Do not alter the internal Dialogue Manager code in the procedure or the report may not run.
- Run the report.
- Run the report deferred.
- Delete the report. A confirmation displays before the file is removed.
- View and change properties. For example, a report can be unshared.

- Access the deferred output using the Deferred Status option. The report can be Run Deferred, but will be run using the Managed Reporting Administrator's user ID.



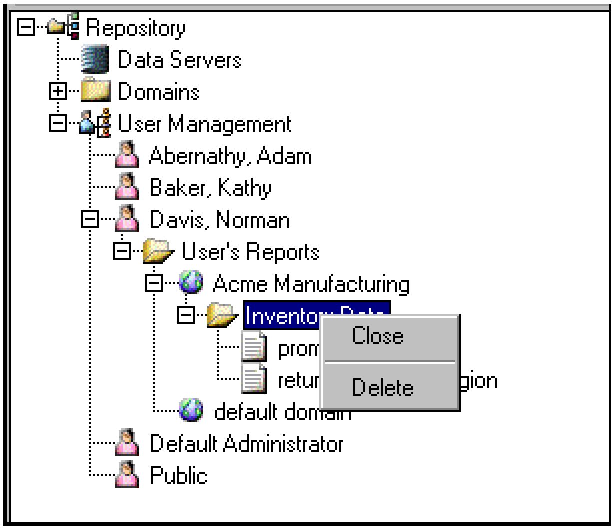
Note: The report runs with the WebFOCUS Server ID of the Managed Reporting Administrator, not the user, which may produce different report results.

For finished output such as saved deferred output and distributed ReportCaster output, the options are different as shown below:



The finished output cannot be opened, run, run deferred, or edited because it may contain secured data that is only visible to the user who ran the report initially. However, it can be deleted and its properties can be changed.

Folder options include Close and Delete.



If delete is selected, a confirmation displays before deleting all the user’s reports in this folder.

When you are logged in to Domain Builder as a Managed Reporting Administrator, you view a snapshot of information available in User Management. However, Managed Reporting is a dynamic system. Users, domains, and reports are constantly being added, deleted, or changed. In order to view the most recent status, you can use the refresh options below:

- **Reload User Management.** Refreshes the list of users.
- **Reload User.** Refreshes the list of domains to which the user has access.
- **Reload Domain.** Refreshes the list of reports this user has created for this domain.

CHAPTER 6

Change Management

Topics:

- Understanding the Change Management Process
- Managed Reporting Development Environment
- Understanding Internal Managed Reporting References
- Managed Reporting Change Management Features

Change management is the process of moving application components between WebFOCUS environments. Developers move components between development and testing environments. Systems or production control professionals move components between testing and production environments. There are features in Managed Reporting and methodologies that can be used to facilitate these important tasks.

For more information about configuring multiple WebFOCUS environments, see the Best Practices papers entitled *Enterprise Implementation Considerations* at techsupport.ibi.com/bestpractices.

Understanding the Change Management Process

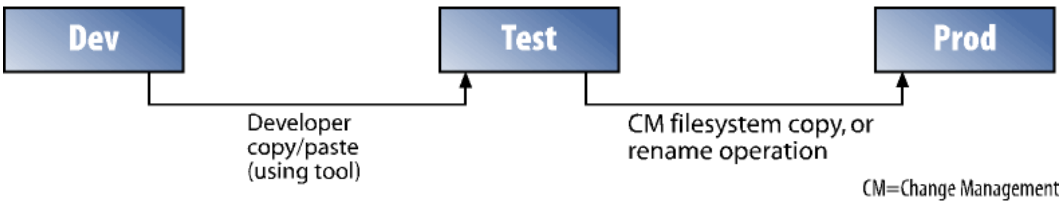
Developing an application is an iterative process. Developers are constantly revising pieces of their application and periodically moving these components to the test environment for feedback. At some point, user feedback must be solicited and the application must be stable. After an application is released for general use, problems must be fixed, tested, and incorporated into the production environment. This is the essence of change management, sometimes also referred to as configuration management or production control.

Companies vary widely in how they approach change management. Some delegate much of the responsibility to developers while others establish separate organizations to maintain a higher degree of control. Typically developers prefer to stay in their development tool environment to perform these duties while change management professionals prefer batch-oriented and API-based methods to move application components between environments. Developers may be required to use a home-grown change management application in order to initiate changes once the application has moved into production. Often times it is a combination of these approaches being used within larger companies.

The examples that follow illustrate two different change management processes that might be found in a company. These sections describe product features and methodologies that can be utilized by companies to meet their change management objectives with Managed Reporting.

Example A Simple Change Management Process

In this example, developers move application files between the development and test environments using their development tool. When the application is finished, a systems person copies the application from test to production using operating system utilities. There may only be a single test environment as shown in the following graphic.:

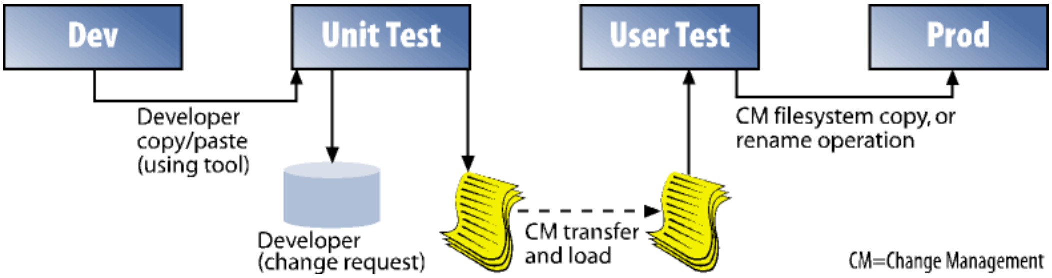


Example A Comprehensive Change Management Process

In this example, four WebFOCUS environments are established to increase the level of control over the process. Developers use their tool to move application files from development to test and sign on to a custom application to initiate the next step of the change process.

A custom application accumulates developer change requests and then extracts the changed files from the integration test environment and inserts them into the quality assurance environment. The custom application logs changes for record keeping purposes.

When the application is deemed ready for release, the change management organization initiates a file system copy of the application to the production environment. Users begin using the application and the change management process shifts into an application maintenance support role.



Managed Reporting Development Environment

When you are developing a Managed Reporting application, you are working with files that are controlled by the WebFOCUS Client and stored in a centralized location called the Managed Reporting Repository. There is no decentralized local developer copy of this Repository or of Managed Reporting files. Regardless of whether the developer is using the Java applet or Developer Studio tools, the process entails retrieving a copy of the file(s), making changes, and saving the files back to the Repository.

This means that all Managed Reporting developers are working in a common Repository simultaneously and moving their application components to a common test environment. The Managed Reporting Domain/Domain Admin concept enables two or more developers to work on different parts of the application simultaneously without affecting each other. However, when two or more developers are working on files in a single Domain, the responsibility is on the developers to coordinate their changes. For example, if two developers are working on the same report file at the same time, the last one saving the file overwrites it.

Understanding Internal Managed Reporting References

Developers and end users see and use Descriptions to navigate their way about the Managed Reporting environment. The Managed Reporting environment itself uses internal references instead to locate and process requests for Managed Reporting resources.

At any time, developers are free to change these Descriptions and users will see them the next time they login to Managed Reporting (or refresh their view). A Description change does not affect how the file is processed since the internal reference remains the same.

The internal references for certain Managed Reporting objects are shown below:

- **Domain.** Visible on the Domain Properties dialog box, for example, untitled/untitled.htm
- **Standard Report.** Visible on the Report Properties dialog box, for example, app/prospect.fex or app/launchpa.htm.
- **Reporting Object.** Visible on the Reporting Object Propeprties dialog box, for example, mrv/salesdat.fex
- **Folders and Sub-Folders.** Visible on the object's Property dialog box, for example, #westernregio.
- **Repository.** This is not visible from within the Java applet tools but can be specified on the signon page to override the default value. Developers using Developer Studio can specify the Repository within the WebFOCUS Environment Properties dialogue. For more information, see the *WebFOCUS Developing Reporting Applications* manual. The variable MR_BASE_DIR specifies the full operating system path to the root of the Managed Reporting Repository (for example, d:\ibi\WebFOCUS52\basedir) and is defaulted in the WebFOCUS script file cgivars.wfs.

When you create a Domain, Report, or Folder with the tools, Managed Reporting generates the internal reference for the object and stores it. The Description you provided is used to create the reference, although spaces and special characters are removed and the reference is truncated to a fixed length. If you create another object with a similar Description, Managed Reporting may decide to randomly generate the reference to ensure that each reference is unique within its namespace.

These references are used within the product from many places. Products and features that use these references include:

- Published Launch pages inside or outside the Repository.
- ReportCaster, to retrieve the report at execution time.
- Drill down links.
- End user My Reports.

When moving files between Managed Reporting Repositories, such as between your development and test environments, it is critical that these references (and the Descriptions) remain the same.

You can avoid problems by performing the following:

- Create the domains in each of your environments in the same order. The internal references will be created the same in each.
- Use the Properties dialog box to check references.
- Pay attention to alert windows when copying files.
- Test your application before moving it into production.

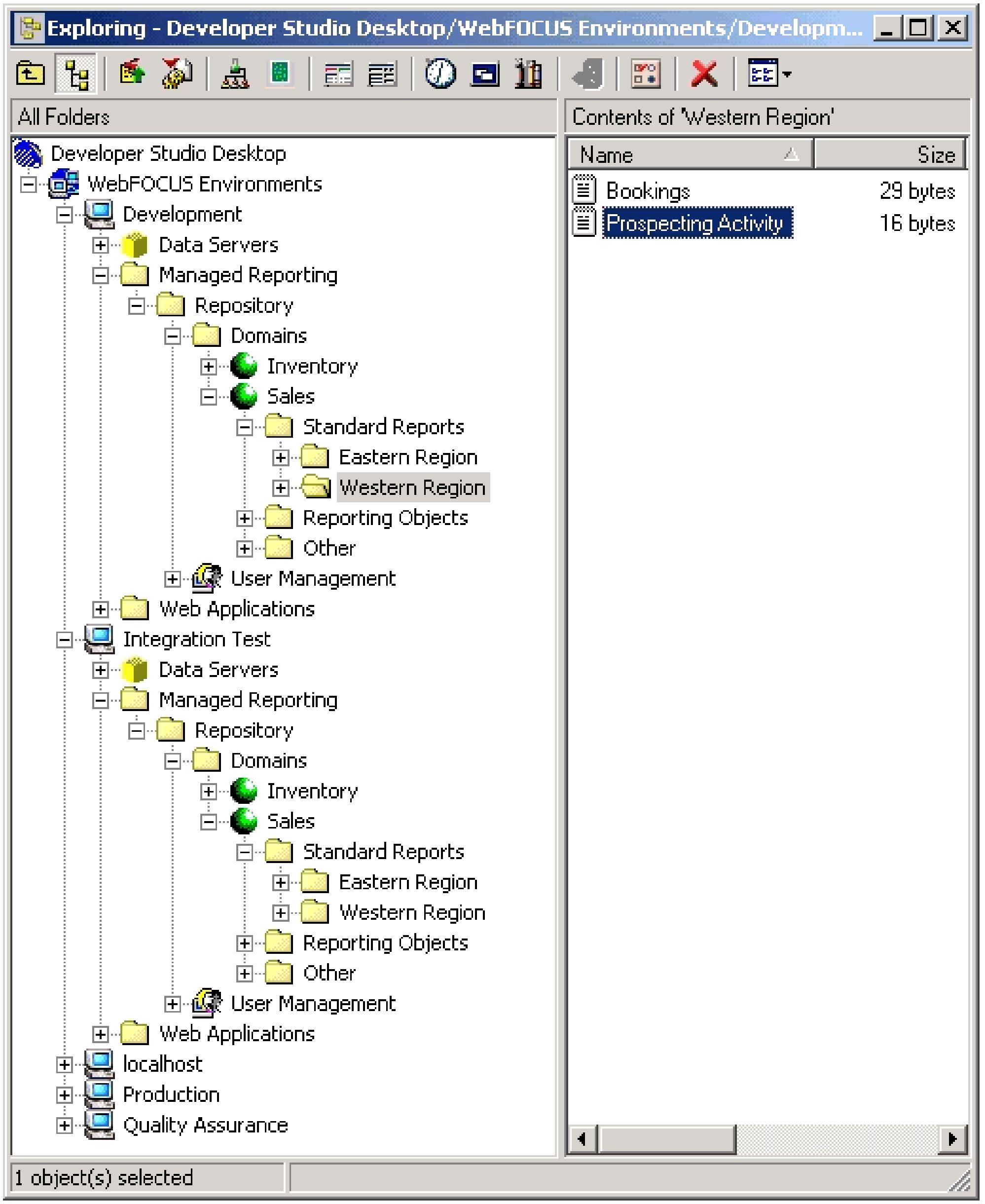
Managed Reporting Change Management Features

The following sections detail features or methodologies that can help organizations achieve their change management objectives with Managed Reporting.

Note: The inter-Repository copy features described below are only supported in the Windows-based Developer Studio product. This is because Developer Studio can connect with two or more Managed Reporting environments simultaneously, while the Java applet tools cannot.

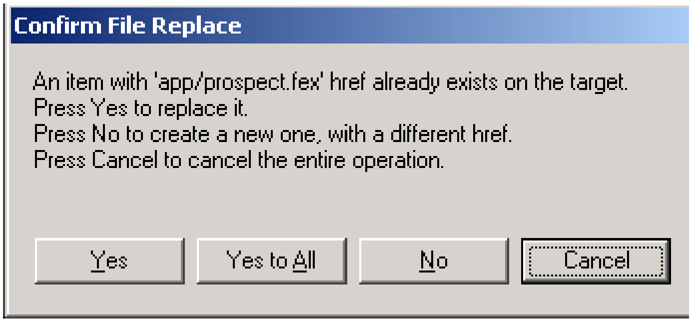
Copying Files Between Environments Using Developer Studio

From the Explorer window, you can drag and drop (or copy/paste) a modified procedure called Prospecting Report from your Development environment to the Western Region folder of the Integration Test environment.



A status window shows the progress of the copy operation. Note the internal folder reference, #westernregio, of the procedure being copied.

If the procedure already exists in the destination (meaning that this procedure's internal reference is already being used), another alert window appears:

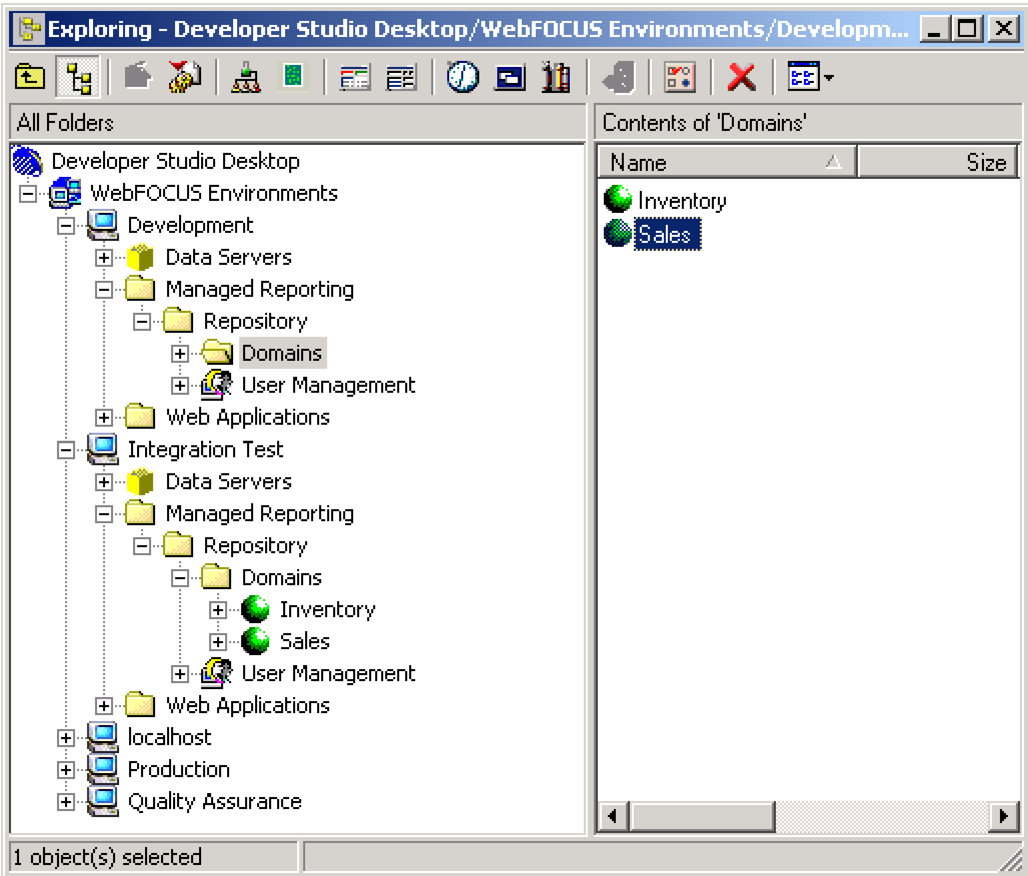


If you are sure that the procedure you are copying is an update for the one in the target, click Yes (or Yes to All) and it will be updated. If you click No, your file will be copied to the target Repository and a new internal reference will be generated for it. In this case, it is your responsibility to resolve problems with other products and features that may be relying on this reference, which you have agreed to change. See *Understanding Internal Managed Reporting References* on page 6-4.

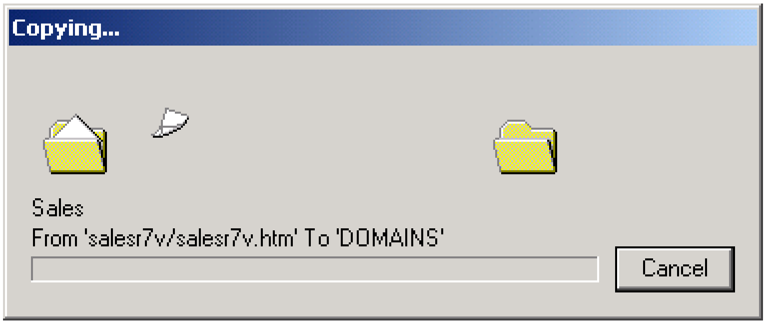
If you are at all unsure about what to do, click Cancel and contact your administrator.

Copying a Domain Between Environments Using Developer Studio

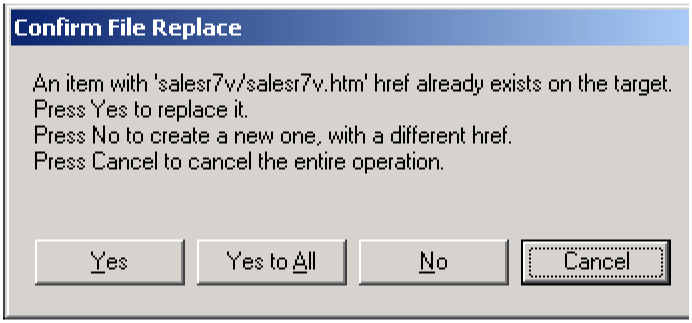
From the Explorer window, you can drag and drop (or copy/paste) the contents of an entire Domain called Sales from your Development environment to the Domains folder of the Integration Test environment.



A status window shows the progress of the copy operation. Note the internal reference salesr7v/sales7rv.htm of the Domain being copied.



If the Domain already exists in the destination (meaning that this Domain's internal reference is already being used), another alert window appears:



If you are sure that the Domain you are copying is a complete replacement for the one in the target, click Yes and it will be updated. If you click No, your Domain will be copied to the target Repository and a new internal reference will be generated for it. In this case, it is your responsibility to resolve problems with other products and features that may be relying on this reference, which you have agreed to change. See *Understanding Internal Managed Reporting References* on page 6-4 for more information.

If you are at all unsure about what to do, click Cancel and contact your administrator.

Programmatically Moving Resources Between Environments

IBI recognizes the requirement that there be a programmatic way to extract Standard Reports and Reporting Objects from one Managed Reporting Repository and insert them into another. Taking the human element out of the process improves reliability and security while increasing auditability. Having this capability is key to the change management process at many larger companies.

There is a new Java API underlying the Version 5 Release 2 Managed Reporting environment that will be formally released to customers in the future. Many of the Managed Reporting features you see in this release are based on this API, including the Managed Reporting Extract Utility (WebFOCUS52/utilities/mrextract.bat) and the Managed Reporting API Sample Page (http://machine/ibi_html/samples/mrapi.htm). You can use these API-based features to learn more about the API. If you are interested in programmatically moving resources between Managed Reporting environments, please contact IBI Customer Support so that you can receive advance notification of information about the API.

CHAPTER 7

ReportCaster Alerts Administration

Topics:

- What Are Alerts?
- What Can Be an Alert?
- Components of an Alert
- Two-Way Email Support
- The Alert Wizard
- Checking Alerts

WebFOCUS ReportCaster Alerts enable MRE Administrators and Domain Administrators to distribute an entire report or selected sections of a report only when certain test conditions are met. The ReportCaster Alerts feature is available from the WebFOCUS Managed Reporting environment.

What Are Alerts?

A ReportCaster Alert sends notification to a user whenever a specified event takes place within a data source. This allows the user to remain in constant communication with a data source from any location. You are able to create test conditions (rules) and specify how often you would like these rules or events to be checked against a data source. ReportCaster can then generate a report or sections of that report (burst option) as a result of the alert.

ReportCaster Alerts work with all email clients, including the following mobile devices: Palm OS®, Pocket PC, Blackberry™, and email-enabled mobile phones. Alerts can also be sent to any PC or laptop computer with email capability.

ReportCaster Alerts provide the following:

- **Alert Wizard.** Allows the Administrator to quickly set up test conditions (rules) that determine if an alert should be launched. It also allows the Administrator to create the report for distribution and select distribution options for the alert.
- **Two-Way Email support.** Offers the Administrator the ability to attach a Two-Way Email template to a ReportCaster Alert, providing users with the ability to automatically respond to alerts.
- **Scheduling flexibility.** When scheduling a ReportCaster Alert, users can choose to run the alert as often as every minute to check for desired test conditions.

What Can Be an Alert?

A data driven alert is an event that is prompted by a guideline you define. This guideline can vary from simple to complex. For example, a simple guideline might be to alert a sales manager when an order is entered that exceeds $1 million. An example of a more complex guideline might be to alert a department head when cumulative expenses exceed budget for any category. The report sent to the manager as a result of the alert could show the most recent transactions, their amounts, and their sources.

Components of an Alert

The ReportCaster Alert feature requires the following components:

- **ReportCaster Repository.** The ReportCaster Repository stores schedule, distribution, and log information for alerts and report jobs.
- **WebFOCUS Reporting Server.** Is where the data resides, it is responsible for executing the procedure, accessing and retrieving the requested data, and distributing the alert scheduled with ReportCaster.

- **Distribution Server.** Activates every minute to check for jobs scheduled to run in the last minute. It extracts schedule and distribution information from the ReportCaster Repository and then submits the scheduled alert to the WebFOCUS Reporting Server for execution and distribution.
- **Managed Reporting Environment.** This environment is used to create and manage ReportCaster Alerts.

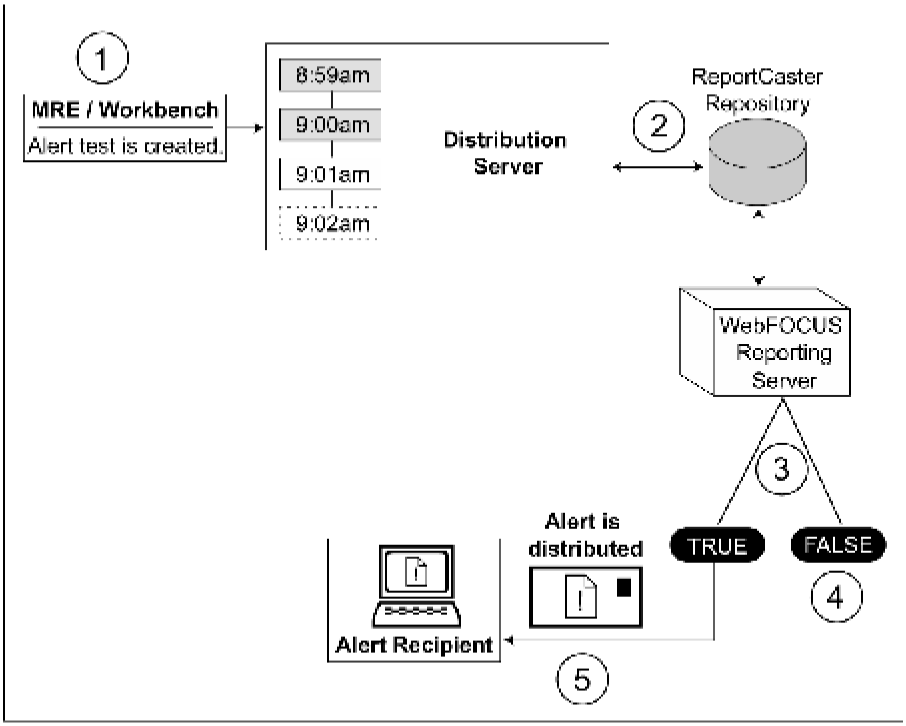
A ReportCaster Alert consists of the following:

- Alert test procedure.
- Alert event procedure.

An alert test procedure is required to check whether or not a set of test conditions (rules) is met (true or false). If the conditions are true, an alert event procedure is executed. An alert event procedure specifies the report to be distributed. Once an alert is created, it is stored in the Web BASEDIR (MRE) or on the WebFOCUS Reporting Server (WebFOCUS Reporting Server procedures).

The Life of a ReportCaster Alert

The following diagram illustrates how ReportCaster Alert processing works:



1. The MRE Administrator creates a ReportCaster Alert test (manually or using the Alert Wizard) and designs the report to be run if the alert conditions occur.
2. The ReportCaster Distribution Server activates each minute to check for scheduled jobs in the ReportCaster Repository.
3. When a scheduled alert test is found, it is evaluated on the WebFOCUS Reporting Server to see if all test conditions (rules) are true.
4. If the alert test is false, the alert is re-queued for the next scheduled alert test.
5. If the alert test is true, the Distribution Server distributes the alert report. Once the report is distributed, the default action is to de-activate an alert once it has been triggered. You can choose to re-activate the alert, but this is not recommended for any alerts that will be checked less than weekly. Note that a Two-Way Email template can be attached to provide alert response capability.

Two-Way Email Support

In addition to supporting the request and distribution of reports from the WebFOCUS MRE using email, Two-Way Email also supports the ReportCaster Alert feature. Two-Way Email users are allowed to respond to a data-driven alert and perform further actions. For example, they can request more information about a topic, distribute reports to employees, or update a data source. Essentially, an alert response exposes users to all the functions that are offered by WebFOCUS.

The Alert Wizard, part of the MRE, contains a property that enables the Administrator to link any scheduled alert to a single Two-Way Email report.

The Alert Wizard

To facilitate the creation and scheduling of alerts in ReportCaster, the Alert Wizard guides you through a series of panels that complete the following tasks:

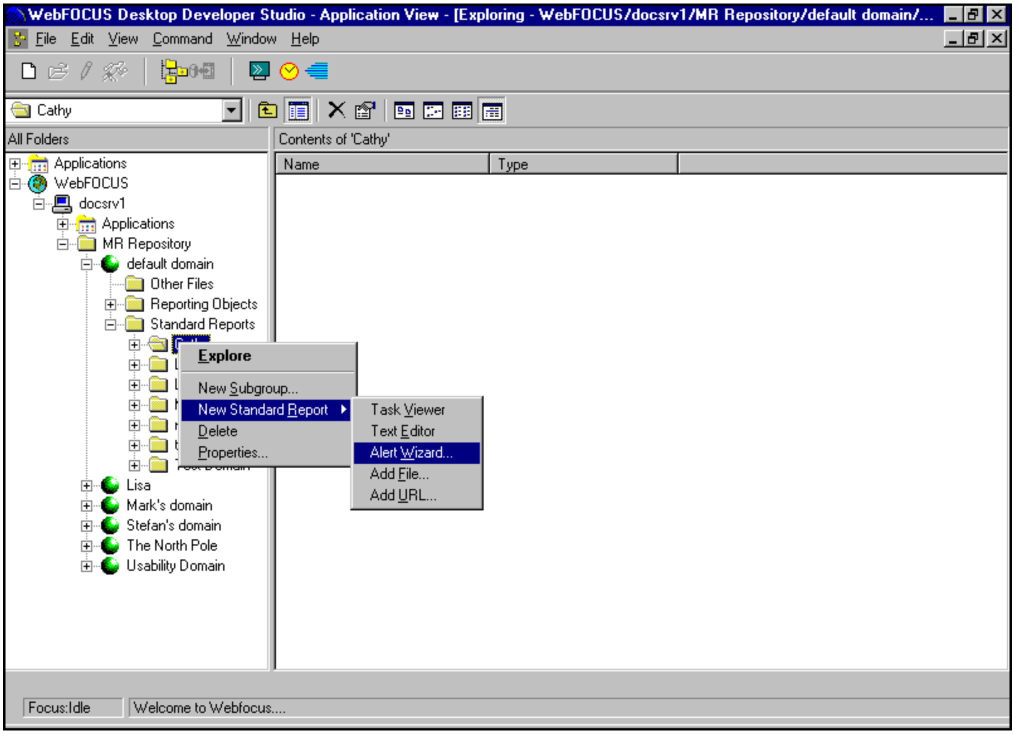
- Create an alert test.
- Create a new report to be distributed or select an existing report.
- Attach a Two-Way Email to the alert (optional).
- Schedule the alert test (or optionally choose to schedule the alert later).
- Select the distribution options for the alert.

Note: If you create an alert (from the Alert Wizard) and you report against a HOLD file created by an Alert Test, you will be unable to invoke the Financial Report Painter from the Report Painter.

Procedure How to Access the Alert Wizard in MRE

If you are logged into the Managed Reporting Environment as an MRE Administrator or Domain Administrator,

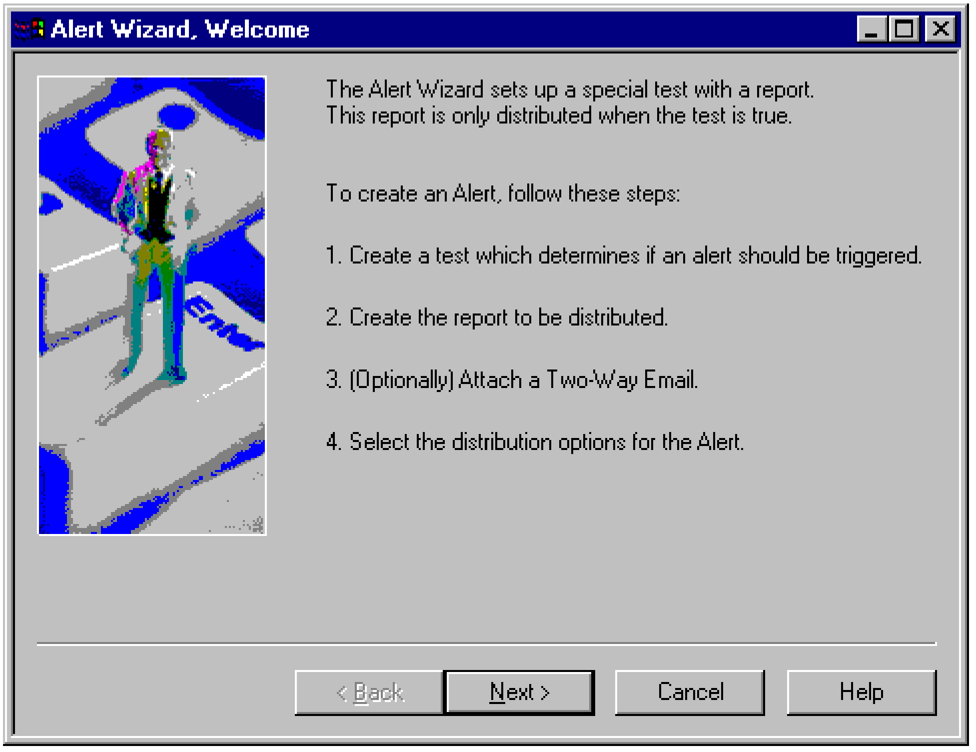
1. Right-click a subfolder under a Standard Report folder. A context menu displays:



2. Select *New Standard Report*, then *Alert Wizard*.

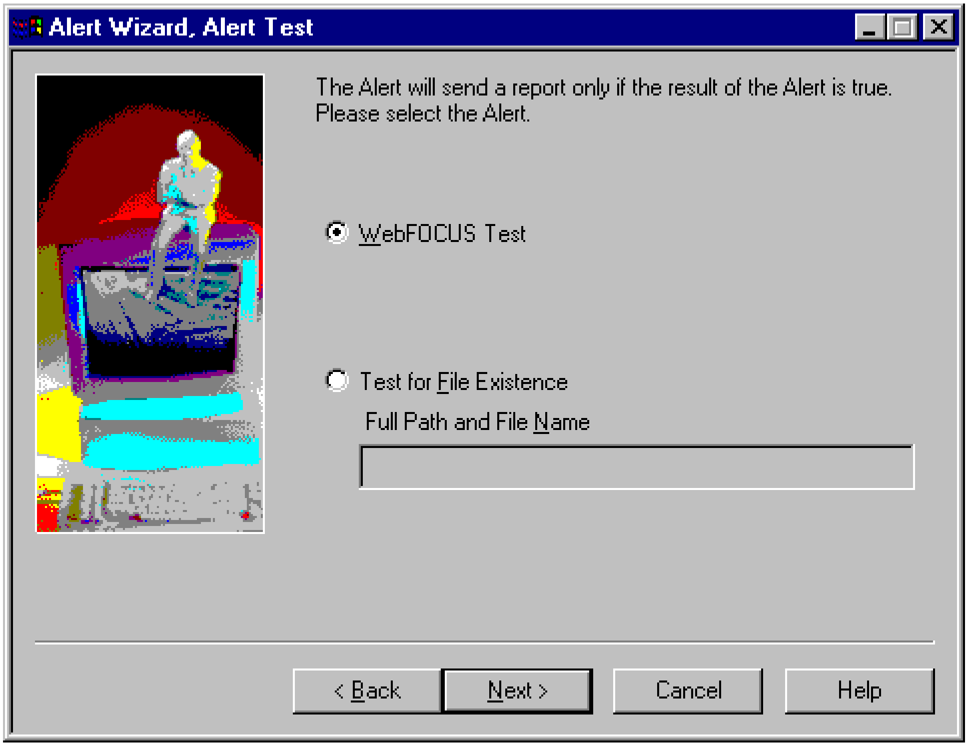
Procedure How to Create an Alert Test

1. Right-click a Standard Reports subfolder. Select *New Standard Report*, then *Alert Wizard* from the context menus. The Alert Wizard, Welcome panel displays:



From this panel you can create one or more tests for your alert. The alert report is distributed only if the entire test evaluates as true.

2. Click *Next*. The Alert Wizard, Alert Test panel displays:



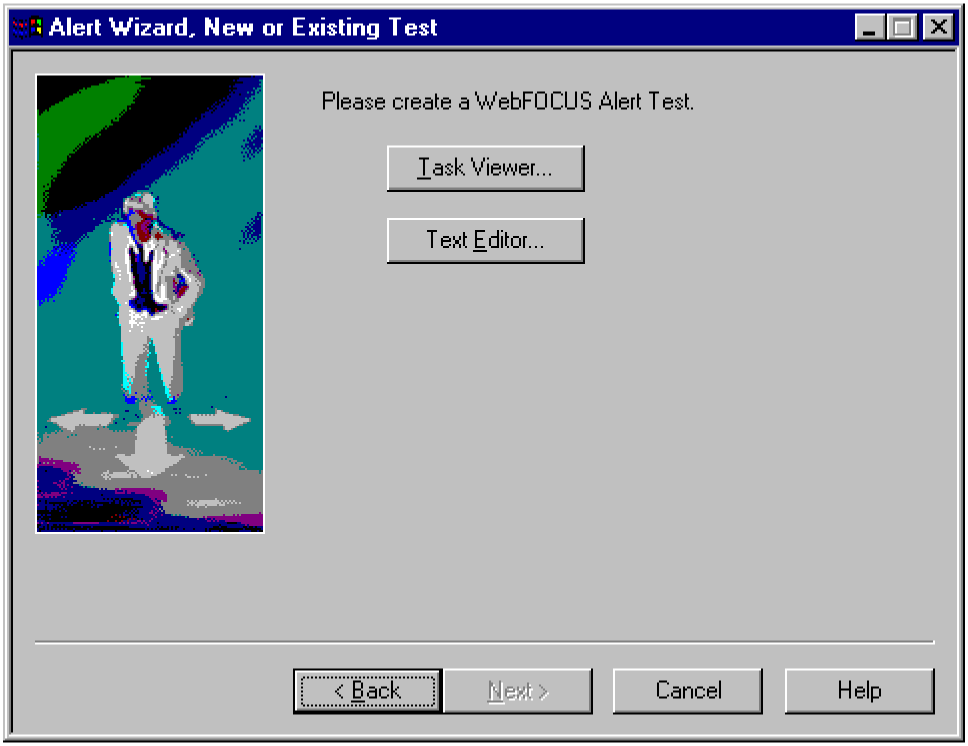
3. Select the alert test.

WebFOCUS Test is the default. If you chose WebFOCUS Test, click *Next* and proceed to step 4.

If you want to run an external alert test:

- Click the *Test for File Existence* radio button.
- Type in the full path of the file on the WebFOCUS Reporting Server that you want to check. Do not use a file name or a file path that includes spaces.
- Click *Next*. If the file is located, the alert report is sent.
- Proceed to step 14.

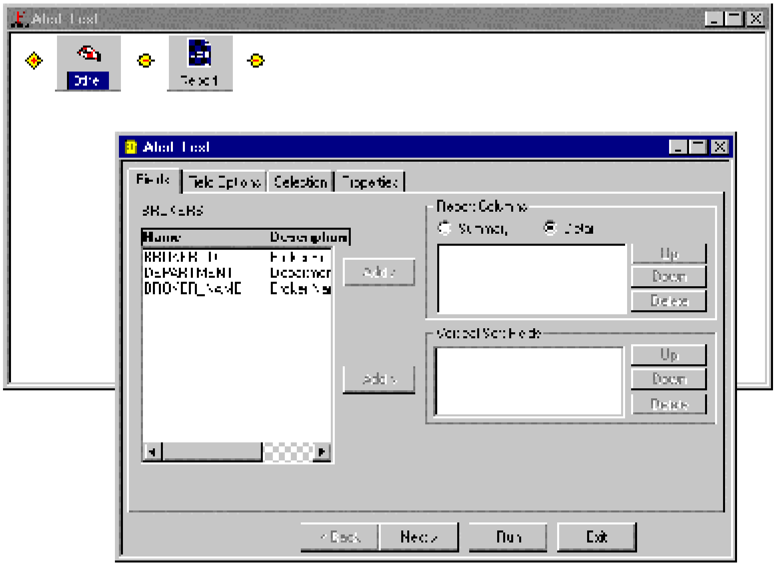
4. The Alert Wizard, New or Existing Test panel displays:



5. Select either Task Viewer or Text Editor to create an alert test.

- If you chose Task Viewer, proceed to step 6 (recommended).
- If you chose Text Editor, proceed to step 10.

6. The WebFOCUS Table List panel displays. Select a data source description and click *OK*. The Task Viewer opens and launches the Alert Test panel where you can create selection criteria for your alert test. (When creating an alert test in the Alert Test panel, do not use amper variables with unknown values in a WHERE condition. Since alerts run unattended, they are not able to collect a value from a user.)



The Task Viewer Alert Test panel enables you to quickly create a simple report from corporate data and display the results in your Web browser. It provides the same functions as the Report Assistant. For details, see *Creating Reports With Graphical Tools*.

Tip: You can use the Task Viewer Alert Test panel to access graphical tools, such as the Join and Define tools, which are not available in the WebFOCUS (browser version). For more information about the Join and Define tools, see Chapter 6, *Creating Temporary Fields*, and Chapter 8, *Joining Data Sources*, in *Creating Reports With Graphical Tools*.

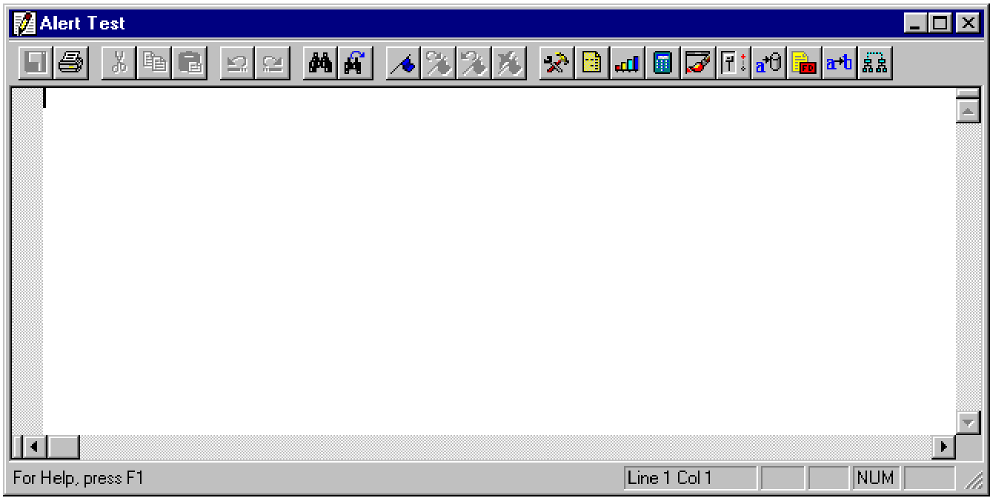
7. Choose your options in the Alert Test panel and click *Exit*. The Do you want to update FOCEXEC? panel displays.

8. Click *Yes*. Your report is saved in the Task Viewer. Exit the Task Viewer. You will be returned to the Alert Wizard, New or Existing Test panel.

9. Click *Next*.

- If you have just created an alert test, proceed to step 14.
- If you have just created an alert event, proceed to step 18.

10. If you chose Text Editor in step 5, the Alert Test Editor panel displays:



11. Type your alert test.

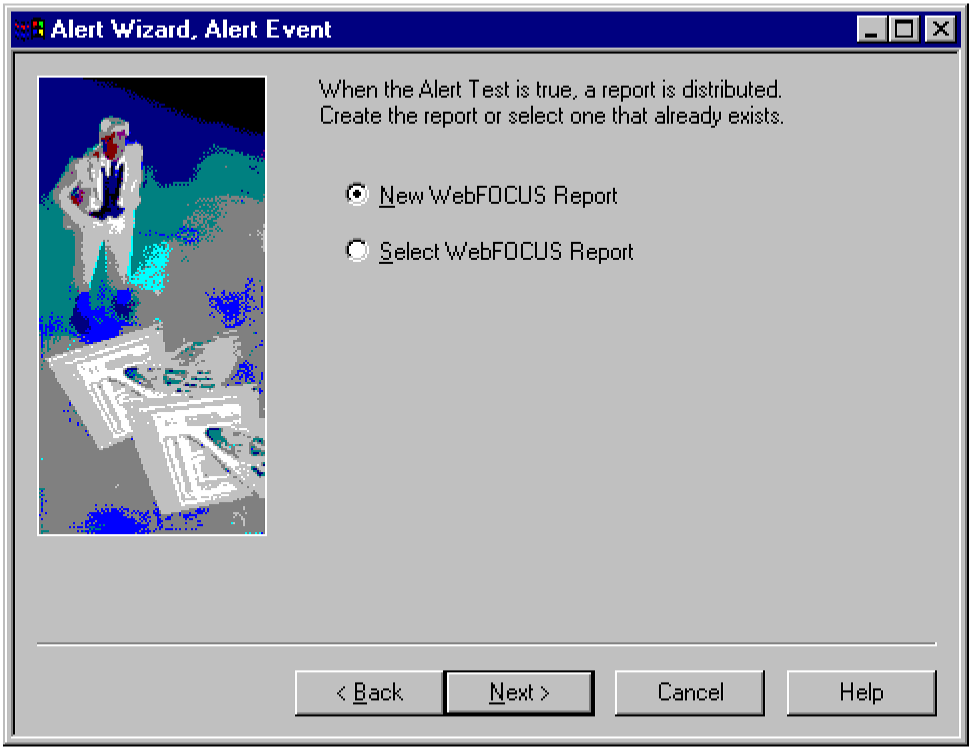
Note: The Text Editor allows you to access graphical tools such as the Join and Define tools. For details, see *How to Create Joins and Defines With the Text Editor* on page 7-18.

12. Close the Text Editor. The Save Current Changes? panel displays.

Note: You must include an ON TABLE HOLD command in your alert test. The HOLD file will display in the list of Master Files when you create the event.

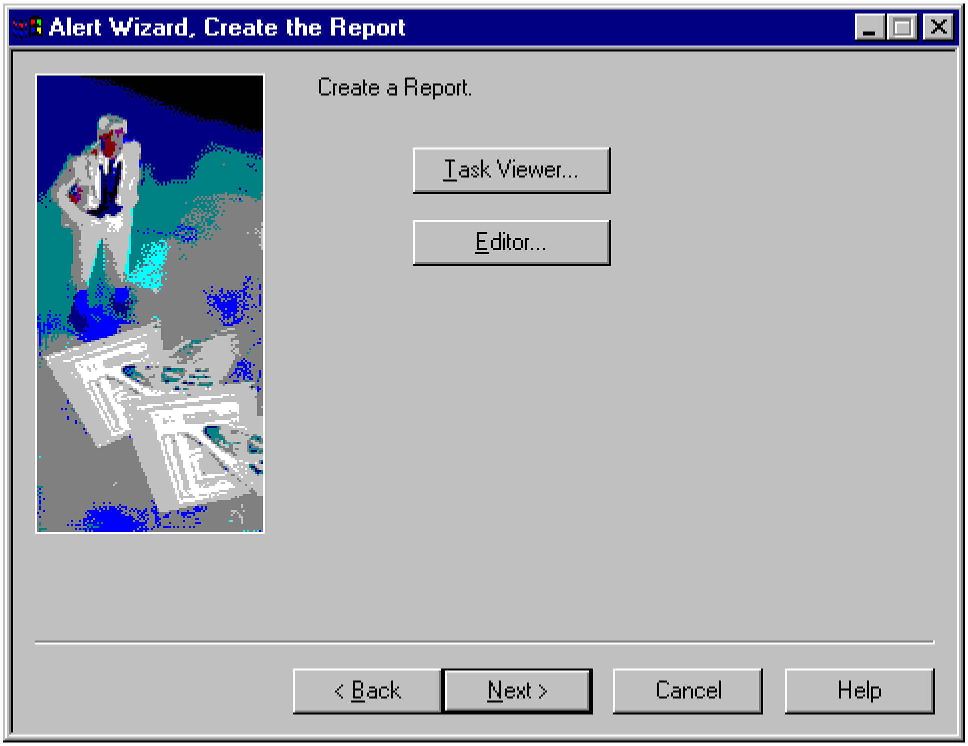
13. Click *Yes* to save your alert test. You will be returned to the Alert Wizard, New or Existing Test panel. Click *Next*.

14. The Alert Wizard, Alert Event panel displays. You can indicate which report to distribute when the alert test is true. It can be a report you create or one that already exists.



- If you chose New WebFOCUS Report, click *Next* and proceed to step 15.
- If you chose Select WebFOCUS Report, click *Next* and proceed to step 16.

15. The Alert Wizard, Create the Report panel displays:

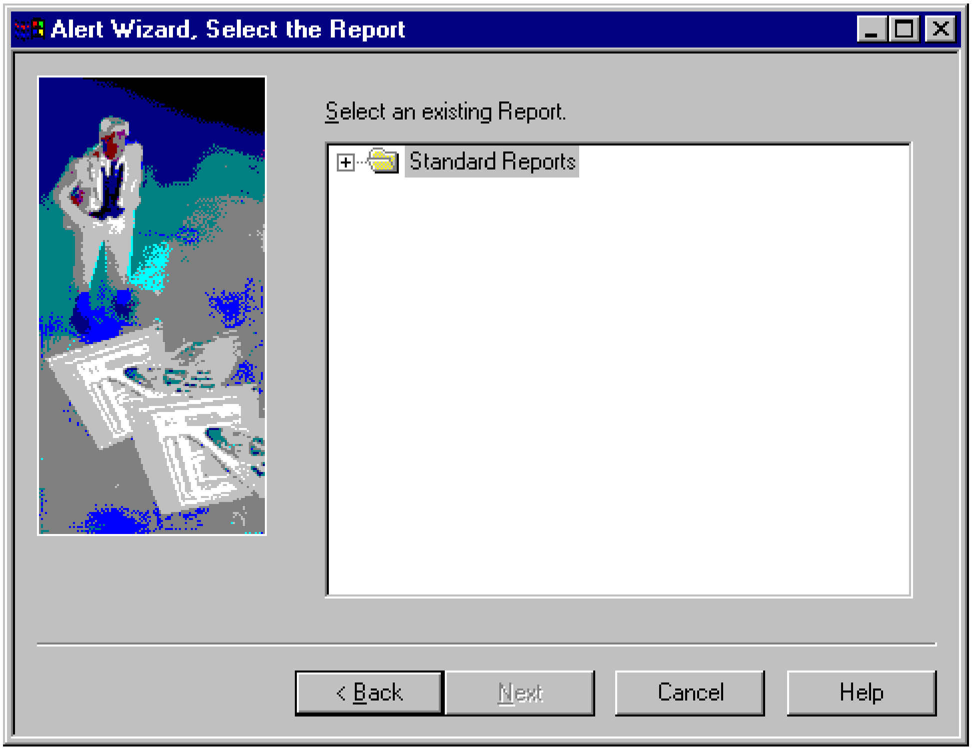


As with the alert test, you can create a new report with the Task Viewer or Text Editor. When you have completed the report using either tool, you return to the Alert Wizard, Create a Report panel. Click Next and proceed to step 18 if you wish to attach a Two-Way Email to your alert.

Note:

- The Task Viewer Alert Event panel provides the same functions as the Report Assistant. For details, see Chapter 2, *Creating Reports With the Report Assistant,* in *Creating Reports With Graphical Tools*.
- From the Task Viewer Alert Event panel you can also access the Report Painter to create a more complex request. For details, see Chapter 3, *Creating Reports With the Report Painter*, in *Creating Reports With Graphical Tools*.
- In addition, using either the Task Viewer or Text Editor, you can access graphical tools, such as the Join and Define tools. For details on accessing these tools from the Text Editor, see *How to Create Joins and Defines With the Text Editor* on page 7-18. For details on accessing these tools from the Task Viewer, see Chapter 2, *Creating a Reporting Procedure*, in *Developing Reporting Applications*.

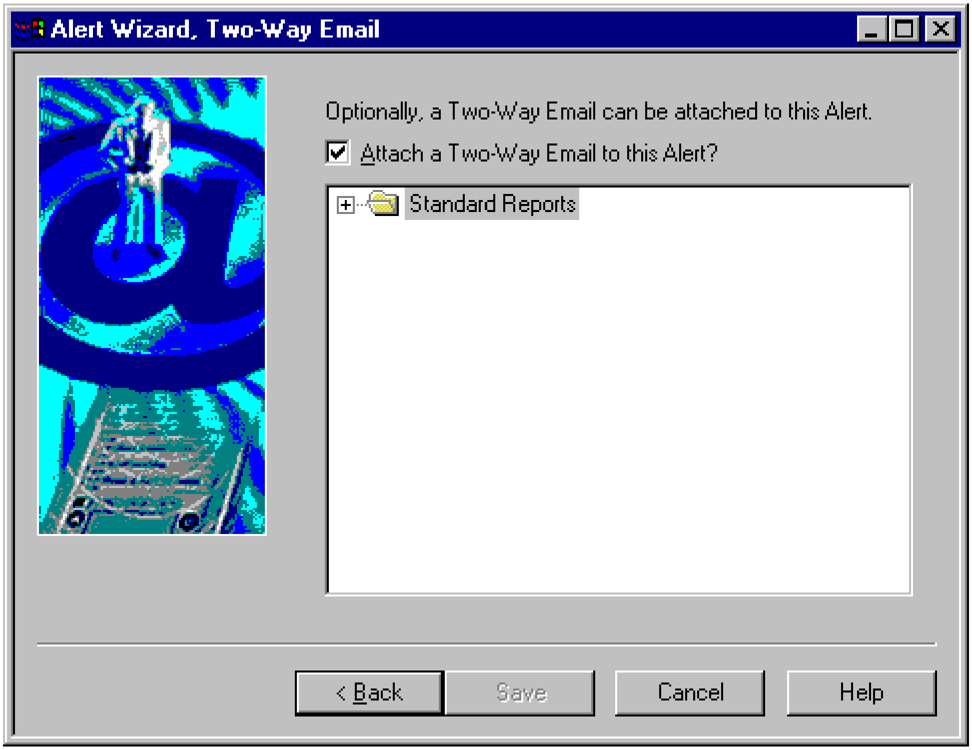
16. The Alert Wizard, Select the Report panel displays:



17. Select your report from the Standard Reports folder and click *Next*.

Note: If you select an existing WebFOCUS Reporting Server procedure (which displays in a tree structure) the procedure is -INCLUDED appropriately into the alert FOCEXEC.

18. The Alert Wizard, Two-Way Email panel displays:



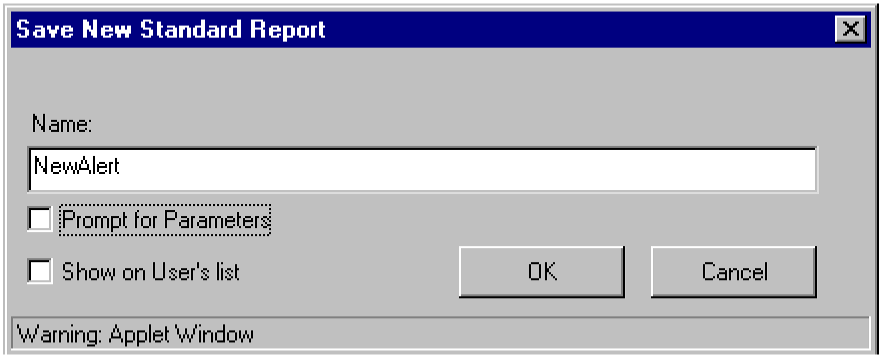
You can now *optionally* attach a Two-Way Email to the alert if your server is licensed for Two-Way Email and has Two-Way Email templates. You select Attach a Two-Way Email to this Alert for an optional Two-Way Email to be attached to the alert. (The check box is unchecked by default.)

If you chose Attach a Two-Way Email to this alert, a tree of reports available to Two-Way Email displays. This tree consists of only Standard Reports that have Two-Way Email templates. If a Standard Report does not have any Two-Way Email templates attached, it will not be listed.

Note: If the Attach a Two-Way by Email to this Alert check box is checked, the Next button will be disabled until a report has been chosen.

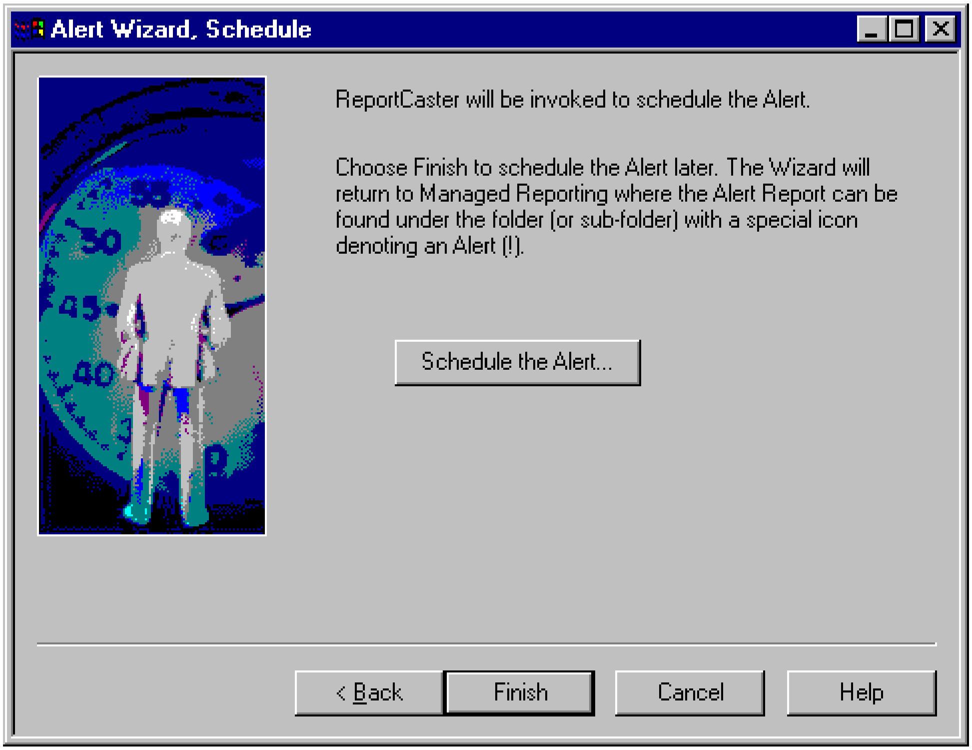
For more information on Two-Way Email, see Chapter 8, *Two-Way Email Administration*.

19. Select a Standard Report and click *Save*. The Save New Standard Report panel displays:

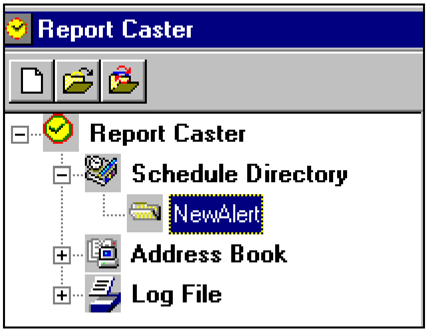


20. Type the name for the alert and, if applicable, check the Prompt for Parameters or Show on User's list check boxes.

21. Click *OK*. The Alert Wizard, Schedule panel displays:



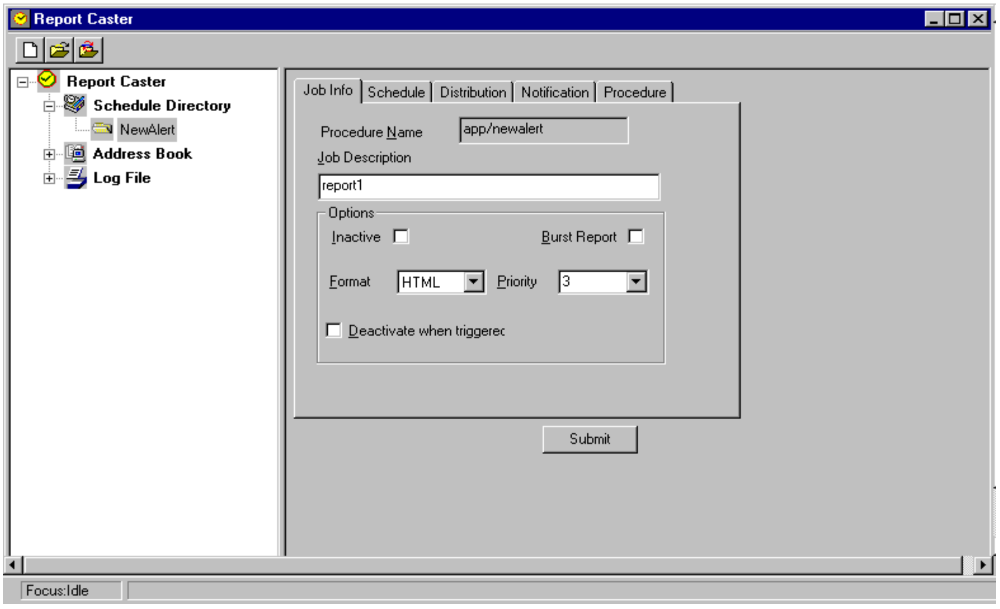
22. Click *Schedule the Alert* to invoke ReportCaster to schedule the alert. The ReportCaster User Interface displays in a separate panel.



Note: If you prefer to schedule the alert at a later date, click *Finish* in the Alert Wizard, Schedule panel, instead of Schedule the Alert. This saves the alert and returns you to the Domain Builder, where you will see your alert report under the folder (or subfolder) with a special icon (!) denoting an alert (as distinguished from a Standard Report).

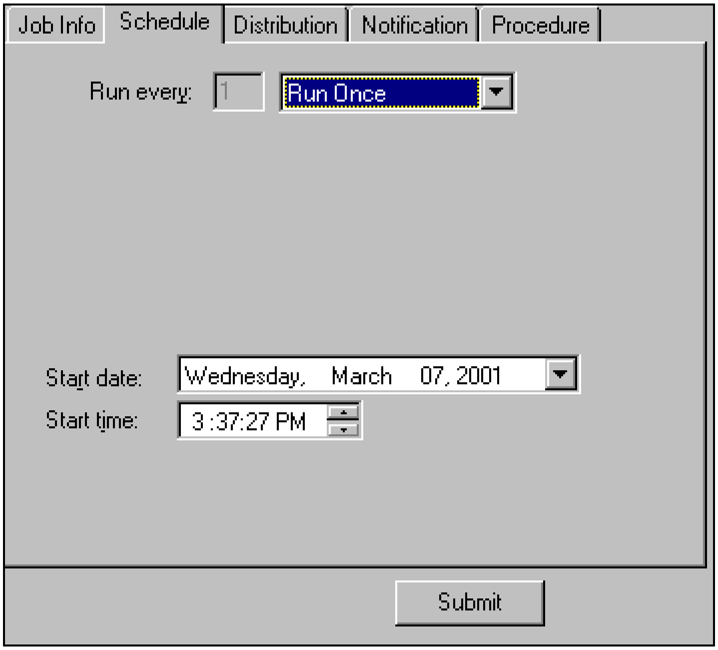
23. Select the alert report (for example, New Alert). Right click and select *New*.

The ReportCaster's Job Info tab displays:



The Deactivate when triggered radio button is checked by default. This feature will disable the alert after it has been activated.

24. If you wish to schedule an alert to run as often as every minute, click the Schedule tab and select the *Run every* option.



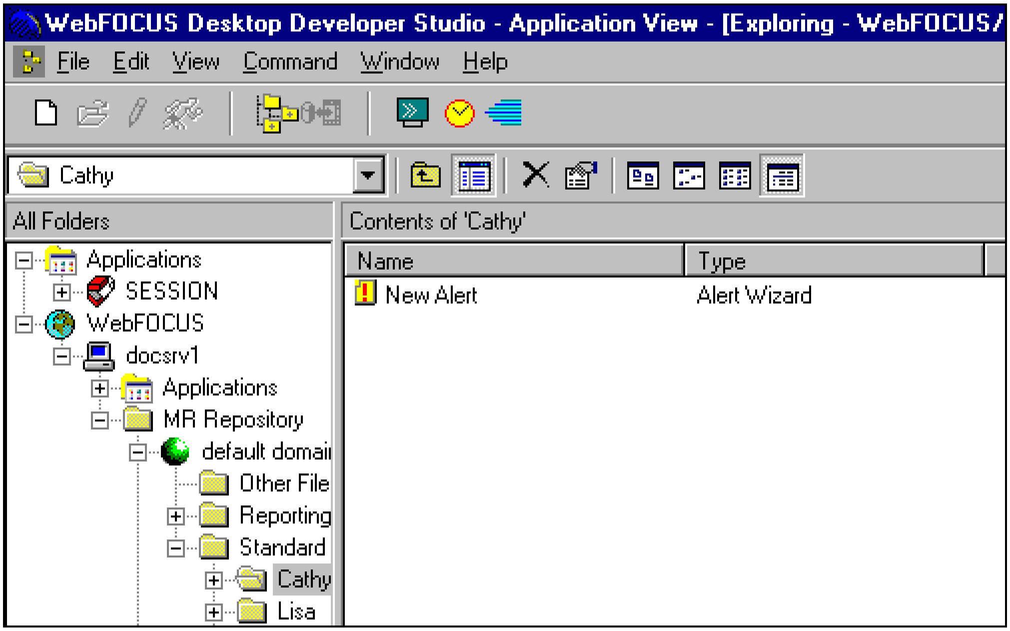
Note that the minute interval may impact system performance.

25. Schedule the alert and click *Submit*.

For more information about using ReportCaster, see your ReportCaster documentation.

26. Exit ReportCaster and click *Finish*.

27. The Alert Report displays in the content panel of the WebFOCUS Explorer.



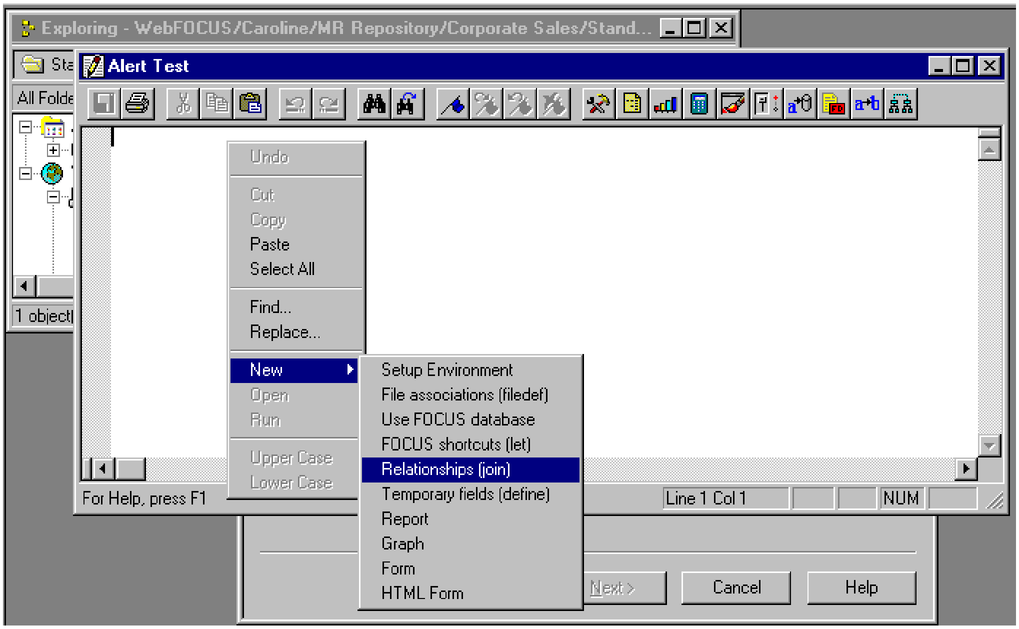
Procedure How to Create Joins and Defines With the Text Editor

The Developer Studio Text Editor (TED) allows you to access tools such as the Join and Define tools, which are not available in WebFOCUS (browser version). You can use the Text Editor to create alert tests or alert events.

To create joins or virtual fields (defines) with the Text Editor, perform the following steps:

1. Click the *Text Editor* button on either the Alert Wizard, New or Existing Test panel or the Alert Wizard, Create the Report panel.

2. Right-click inside the Text Editor Alert Test panel and select *New* from the context menu:



3. Highlight the *Relationships (join)* option if you want to create a join or the *Temporary fields (define)* option if you want to create a virtual field.
4. The WebFOCUS Table List panel displays. Select a data source description from the list and click *OK*. The Join or Define tool opens in the Alert Test or Alert Event panel.
5. Create a Join or Define. When you exit the tool, the Do you want to update FOCEXEC? window displays.
6. Click *Yes***.** The code generated for your Join or Define (virtual field) will be saved in the Alert Test or Alert Event Text Editor panel.
7. Close the Text Editor. The Save Current Changes? panel displays.
8. Click *Yes* to save your Join or Define in the Task Viewer.

For more information about the Join and Define tools, see Chapter 6, *Creating Temporary Fields,* and Chapter 8, *Joining Data Sources* in *Creating Reports With Graphical Tools*.

Checking Alerts

When an alert test is false (and therefore not activated), nothing gets written to the log file. Information about an activated alert is written to the log file. When an error occurs during the execution of a scheduled alert, an error message displays.

In order to track the completion of a scheduled alert, or errors that occurred during execution without checking the log file, we recommend that you utilize the Notification option in ReportCaster.

In the Schedule Directory Applet, the Notification tab allows you to specify:

- The terms for supplying notification (Never (default), Always, or On Error).
- The level of detail in the notification (full notification or brief notification).
- The e-mail address that should receive the notification message.

CHAPTER 8

Two-Way Email Administration

Topics:

Two-Way Email enables a mobile business professional to receive a WebFOCUS report through email, using a handheld device, laptop, or desktop.

As a Managed Reporting Administrator or Domain Administrator, you use the MRE to create and maintain Two-Way Email templates, the means by which a user requests a report.

As a Managed Reporting Administrator and ReportCaster Administrator, you also use the Two-Way Email Administrator console to manage subscriber information, monitor the execution of report requests, cancel requests, and perform other administrative tasks.

This topic describes several features of Two-Way Email, such as its processing steps, that will help Administrators understand their tasks and oversee the Two-Way Email capability. It also includes instructions on performing specific tasks. Finally, it addresses the tasks that a Managed Reporting Administrator and ReportCaster Administrator performs using the Two-Way Email Administrator console.

How Two-Way Email Works

With Two-Way Email, mobile business professionals have access to their company's enterprise data, from any location, at any time.

The following basic activities enable the Two-Way Email capability. The Managed Reporting Administrator or Domain Administrator performs some activities, and the user performs others:

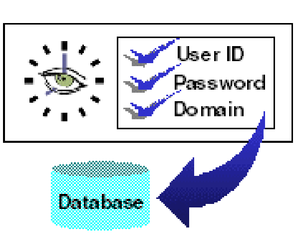
- The Managed Reporting Administrator or Domain Administrator creates Two-Way Email templates from Standard Reports in the WebFOCUS Explorer.
- The Managed Reporting Administrator or ReportCaster Administrator subscribes a first-time user to Two-Way Email using the Two-Way Email Administrator console, or a user subscribes independently from an HTML subscription page supplied with Two-Way Email.
- Two-Way Email sends the user a confirmation message through email, acknowledging the subscription request. The user receives and replies to this message.
- Two-Way Email sends the user the templates allowed for use. The user stores them in the inbox or in a folder on the email client.
- The user simply replies to and sends a template to receive the associated report.

Details on the processing behind these activities follow.

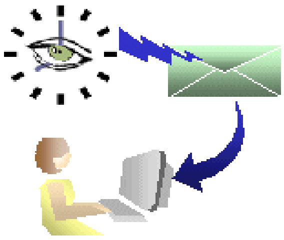
Subscription and Confirmation Processing

The following steps take place when a new user subscribes to Two-Way Email using an HTML subscription page. A Managed Reporting Administrator and ReportCaster Administrator can also subscribe a new user from the Two-Way Email Administrator console.

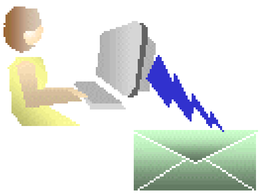
From a browser, a user accesses the HTML subscription page and supplies the MRE user ID and password, WebFOCUS Reporting Server user ID and password, and email address.



Two-Way Email checks the user ID/password and Domain authorization; links the security credentials to the applicable templates; and creates a new user record in the Two-Way Email user database.

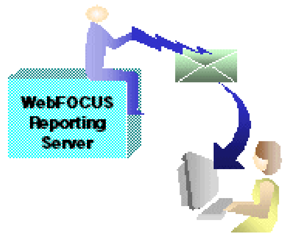


Two-Way Email sends a confirmation message to the user through email.



The user receives and replies to the confirmation message through email, using a handheld device, laptop, or desktop.

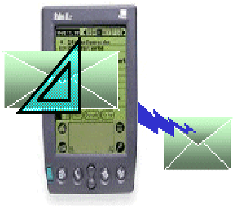
Two-Way Email receives the confirmation reply and verifies the Reply-To address in the user record in the Two-Way Email database.



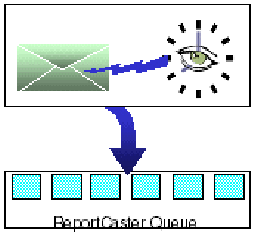
Two-Way Email retrieves the applicable templates from the MRE Repository and sends them to the validated, registered user as emails.

Report Request Processing

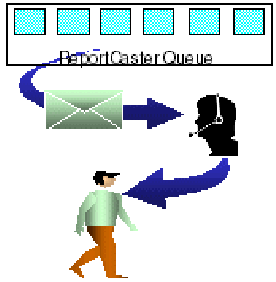
The following steps take place when a user requests a report.



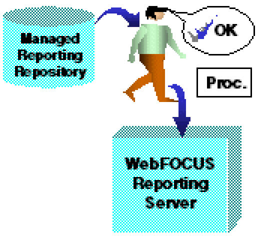
In the handheld device, laptop, or desktop from the email client, the user selects, replies to, and sends a template. The email is routed to an email server.



The Two-Way Email Listener monitors its inbox on the Email Server and detects the request. It validates the sender's address as a subscriber's address and queues the request.

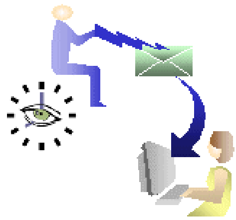


The Two-Way Email Dispatcher takes the request off the queue and starts a Worker thread.



The Worker checks the security credentials from Managed Reporting, retrieves the Standard Report procedure, merges it with parameter values, and sends it to the WebFOCUS Reporting Server for processing.

The Worker starts an agent on the WebFOCUS Reporting Server. The server runs the procedure with any parameter values. The Reporting Server sends output back to the Distribution Server. The Distribution Server sends the email.



The WebFOCUS Reporting Server sends the report to the user as email. The user receives the report.

Secured Message Delivery

Two-Way Email provides the same level of secured message delivery as that provided by Simple Mail Transfer Protocol (SMTP).

MRE enables central management of user access to data. As a Managed Reporting Administrator, you use standard MRE security features to establish the credentials and access privileges of a user. You need to:

- Assign an MRE user ID and password to each Two-Way Email user.
- Grant authorized users access to certain Domains.

Security in the Subscription and Confirmation Procedure

See *Subscription and Confirmation Processing* on page 8-3 for an illustration of this procedure.

For a first-time subscriber, Two-Way Email checks the MRE user ID and password and the Domain authorization. It creates a new subscriber record in the Two-Way Email database and sends a confirmation message to the email address supplied. This message enables validation of the correct Reply-To address for the subscriber, since Two-Way Email actually uses the address to acknowledge the subscription request.

Once Two-Way Email receives the subscriber's reply to the message, it stores the correct address in the Two-Way Email database.

The subscriber's credentials are also linked to the allowed Two-Way Email templates. That information is encrypted to provide additional security.

Security in the Report Request Procedure

See *Report Request Processing* on page 8-4 for an illustration of this procedure.

When a subscriber sends a request for a report, Two-Way Email makes sure that the Reply-To email address of the sender is the same as the email address of the subscriber. This security feature prevents unauthorized users from gaining access to reports.

Two-Way Email also verifies the content of the request, to make sure it is a Two-Way Email request. If it is not, Two-Way Email sends the request to an error account.

Error Account

When a user requests a report, Two-Way Email examines the content of the request. Non-Two-Way Email requests are sent to an error account. The email address for this account is specified during WebFOCUS installation.

Make sure that someone periodically checks and cleans up the error account.

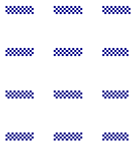
Report Display Considerations

A report displayed on a handheld device is text based and does not support formatting options such as font size or color.

As a Managed Reporting Administrator or Domain Administrator, you are responsible for designing reports that are compatible with the display device. Reports may require tailoring for small screen presentation.

Possible display options include the following. See *Creating Reports With WebFOCUS Language* for details on report display and syntax.

- Narrow, tabular display:

  Use the WebFOCUS PRINT and SUM commands to create tabular display. For example:

  ```
  SET STYLE=OFF, PAGE-NUM=OFF
  TABLE FILE GGSALES
  SUM UNITS DOLLARS
  BY CATEGORY
  END
  ```

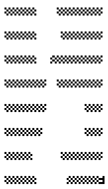
- Free-form display:

  Use the WebFOCUS HEADING command to create free-form display. For example:

  ```
  SET STYLE=OFF, PAGE-NUM=OFF
  TABLE FILE GGSALES
  HEADING
  "<3>UNITS SOLD FOR COFFEE"
  "<5>AND BUDGETED UNITS"
  "CATEGORY: <CATEGORY>"
  "<4>UNITS SOLD:      <UNITS>"
  "<4>BUDGETED UNITS:  <BUDUNITS>"
  FOOTING
  "<8>Confidential"
  BY CATEGORY
  WHERE CATEGORY EQ 'Coffee'
  END
  ```

- Stacked display:



Use the WebFOCUS OVER command to create stacked display. For example:

```
SET STYLE=OFF, PAGE-NUM=OFF
TABLE FILE GGSALES
SUM UNITS OVER
BUDUNITS OVER
COMPUTE DIFF_UNITS = BUDUNITS - UNITS; OVER
DOLLARS OVER
BUDDOLLARS OVER
COMPUTE DIFF_DOLLARS = BUDDOLLARS - DOLLARS;
END
```

Alert Response

Two-Way Email alert response is available only at sites that have licensed and installed both ReportCaster and Two-Way Email. For information on ReportCaster, see ReportCaster documentation.

An MRE Administrator or Domain Administrator can attach a Two-Way Email template to a ReportCaster Alert. The user is alerted when certain pre-defined data conditions are met, and can use the attached template to respond to the alert to request a report for more detail, to redistribute a report or parts of it to other interested people, or to take other timely action.

Creating a Template

As a Managed Reporting Administrator or Domain Administrator, you create a Two-Way Email template, or multiple templates, from an existing Standard Report.

A template may or may not contain parameters requiring values from the user. You do not need to prompt the user for all of the parameters in a Standard Report. You can set any parameter to a value appropriate for the user.

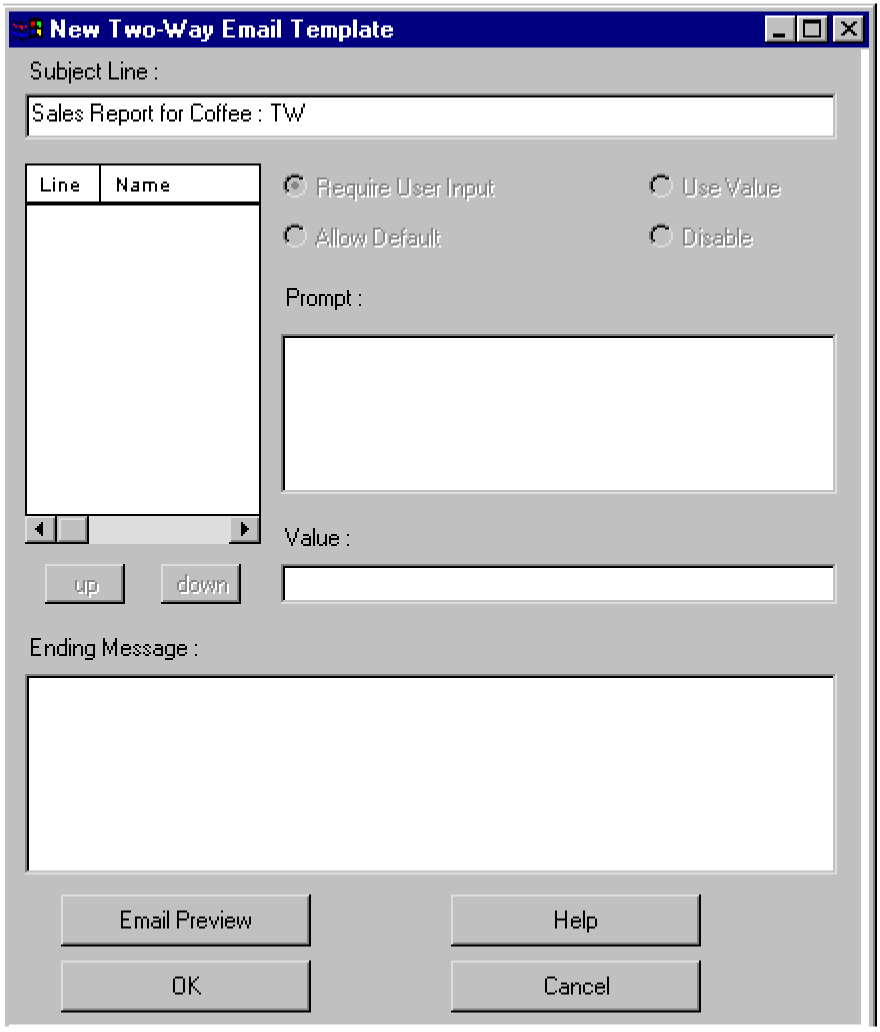
Note: Two-Way Email does not support the WebFOCUS Compound Report feature.

Creating a Template Without Parameters

You can create a template that does not require any user-supplied values.

Procedure How to Create a Template Without Parameters

1. From the WebFOCUS Explorer, right-click the Standard Report from which you want to create a Two-Way Email template. On the pop-up menu, click On the pop-up menu, click *New Two-Way Email Template* to open the New Two-Way Email Template dialog box.



Note: Another way to open the dialog box is to highlight the Standard Report, go to the File menu, and select New Two-Way Email Template from the drop-down list.

2. On the New Two-Way Email Template dialog box, type the subject of the template in the Subject Line field. This value displays as the subject of the email sent to the user.

   Two-Way Email uses the name of the Standard Report as the default subject, followed by a Two-Way Email identifier (for example, TW).

3. Type a description of the template, or an informative message for the user, in the Ending Message field.

4. This description or message displays in the body of the Two-Way Email template.

5. Click *Email Preview* to display the template as the user will see it.

   You can use RIM® (Research In Motion Limited) or Palm™ handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key and clicking *Email Preview*.

   Close the preview window when you are done. Click *OK* on the Two-Way Email window.

   The Save New 'Two-Way Email' window displays.

6. Type the name of the template as it will display in the WebFOCUS Explorer under the associated Standard Report. Click *OK*.

   Two-Way Email displays the template's subject as the default name.

   The template is stored and displayed under the Standard Report from which it was created.

Example Creating a Template Without Parameters

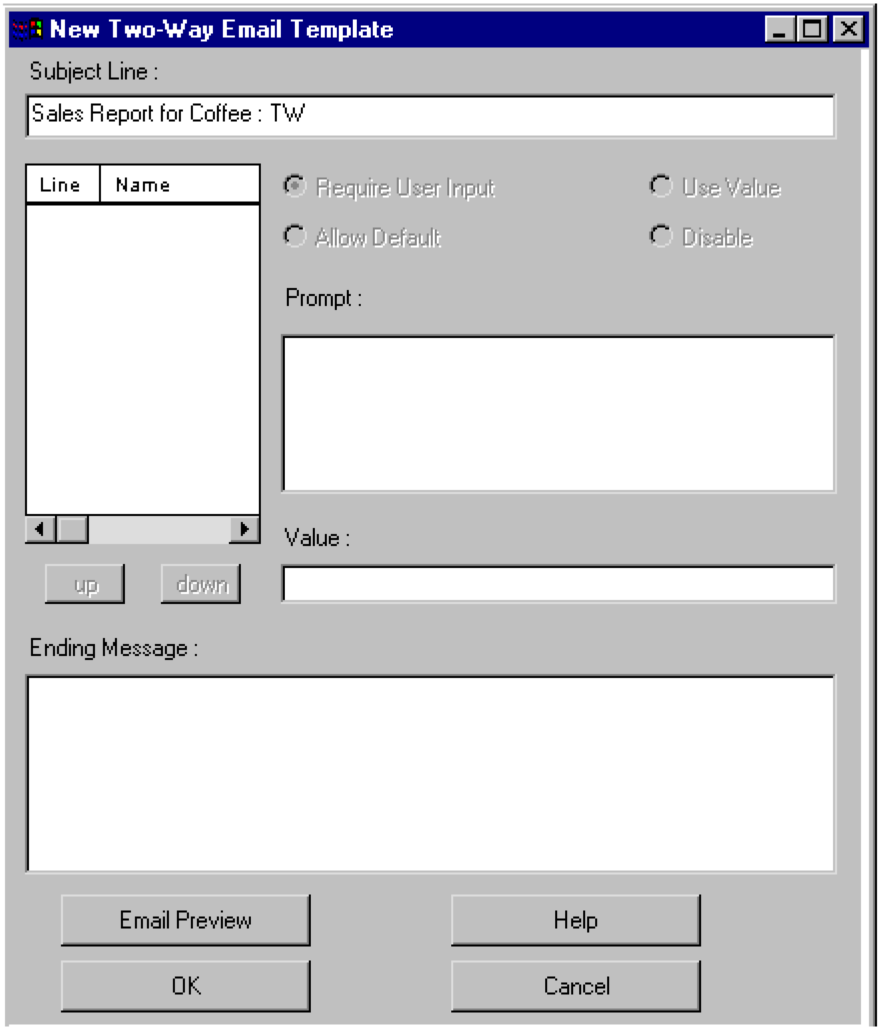
Suppose you want to create a Two-Way Email template from a Standard Report named Sales Report for Coffee.

The Standard Report is:

```
TABLE FILE GGSALES
SUM UNITS DOLLARS
BY CATEGORY
WHERE CATEGORY EQ 'Coffee'
END
```

1. From the WebFOCUS Explorer, right-click the Standard Report named Sales Report for Coffee. On the pop-up menu, click *New Two-Way Email*.

The following window displays:



For more details about the New Two-Way Email dialog box, see .

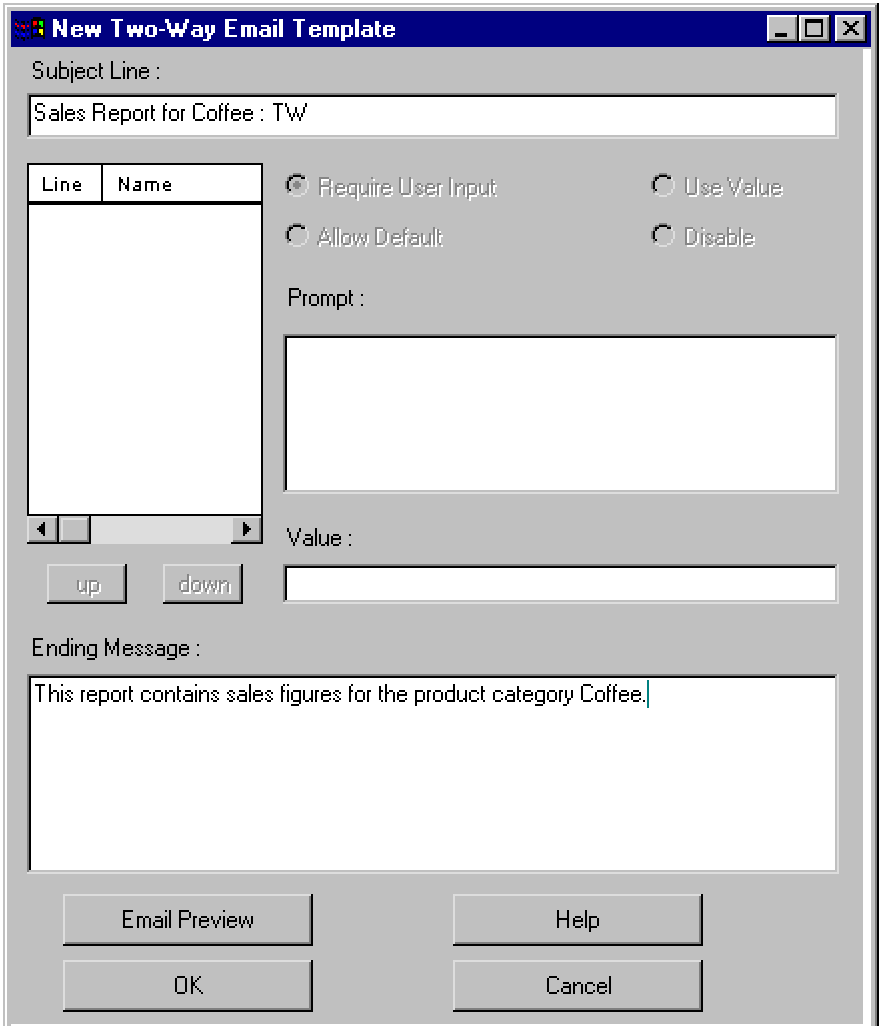
2. In the Subject Line field, accept the default subject of the template.

   This value displays as the subject of the email sent to the user.

3. In the Ending Message field, type the following as the description of the template:

   This report contains sales figures for the product category Coffee.

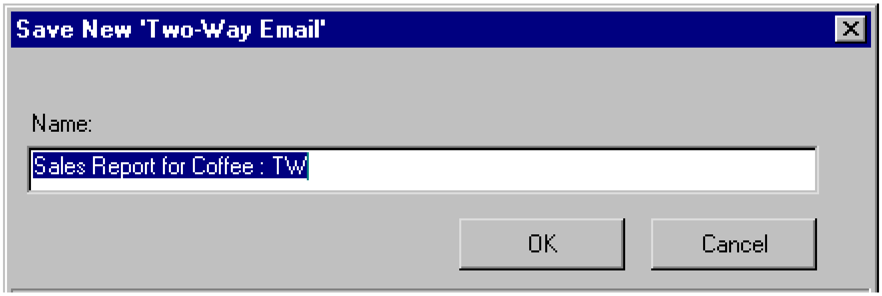
This description displays in the body of the template.



4. Click *Email Preview* to display the template as the user will see it.
5. You can use RIM or Palm handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key and clicking *Email Preview*.

6. Close the preview window when you are done. Click *OK* on the Two-Way Email window.

   The Save New 'Two-Way Email' window displays:



7. Accept the default template name by clicking *OK*. This value identifies the template in the WebFOCUS Explorer under the associated Standard Report.

Procedure How to Create a Template With Parameters

You can create a template that requires a user-supplied value for one or more parameters.

You do not need to prompt the user for all of the parameters in a Standard Report. You can set any parameter to a value appropriate for the user.

1. From the WebFOCUS Explorer, right-click the Standard Report from which you want to create a Two-Way Email template.
2. On the pop-up menu, click *New Two-Way Email*.
3. On the New Two-Way Email Template dialog box, type the subject of the template in the Subject Line field. This value displays as the subject of the email sent to the user.

   Two-Way Email uses the name of the Standard Report as the default subject, followed by a Two-Way Email identifier (for example, TW).
4. Type a description of the template, or an informative message for the user, in the Ending Message field. For example, you may want to indicate valid values for a required parameter.

   This description or message displays in the body of the Two-Way Email template.

5. For each parameter, specify a property.

Property	**Description**
Require User Input	The user must supply a value for the parameter.
Allow Default	The user can supply a value or use the default value. Enter the default value in the field labeled Value. To accept a default value when requesting a report, the user must enter a period on the line corresponding to the parameter. A period is required to ensure that Two-Way Email reads the line.
Use Value	The Administrator supplies the value, which cannot be changed by the user. Enter the required value in the field labeled Value.
Disable	Does not prompt for a parameter value on the Two-Way Email template. Specify this property only when the parameter is already set on the WebFOCUS Reporting Server in a profile or stored procedure.

If you include multiple parameters in the template, click the *up* and *down* buttons to scroll through them. These buttons are only enabled when more than one parameter is specified.

6. If you click *Require User Input* or *Allow Default*, you can supply a prompt that the user will see in the template. For each parameter, type the applicable prompt in the Prompt field.

7. If multiple parameter values are required, it is a good idea to indicate the line number on which each value should be supplied.

If a parameter has the property Allow Default, instruct the user to enter a period (.) on the appropriate line to accept the default value.

8. Click *Email Preview* to display the template as the user will see it.

   You can use RIM or Palm handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key and clicking *Email Preview*.

   Close the preview window when you are done. Click *OK* on the Two-Way Email window.

   The Save New 'Two-Way Email' window displays.

   Two-Way Email uses the subject of the template as the default name. This name identifies the template in the WebFOCUS Explorer under the Standard Report.

9. Accept the default name, or type another name for the template, and click *OK*.

10. The Two-Way Email template displays under the Standard Report from which it was created.

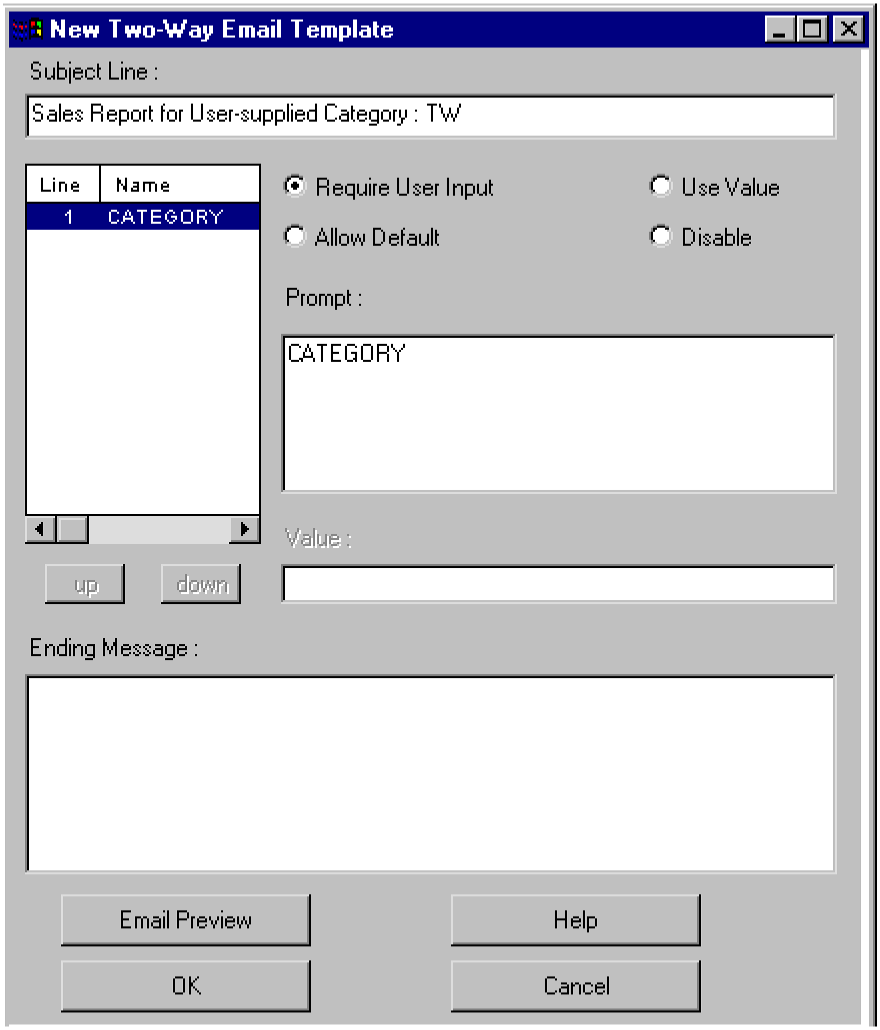
Example Creating a Template With a Parameter

Suppose you want to create a Two-Way Email template using a Standard Report named Sales Report for User-supplied Category. It provides sales information for a product category specified by the user.

The Standard Report is:

```
TABLE FILE GGSALES
SUM UNITS DOLLARS
BY CATEGORY
WHERE CATEGORY EQ '&CATEGORY'
END
```

1. From the WebFOCUS Explorer, right-click the Standard Report named Sales Report for User-supplied Category, from which you will create the template. On the pop-up menu, click *New Two-Way Email*. The following window displays:



2. Use the default subject name of the template as displayed in the Subject Line field. This value displays as the subject of the email sent to the user.
3. Enter the following informative message for the user in the Ending Message field:

   Valid product categories are Coffee, Food, Gifts.
4. Confirm that the Require User Input radio button is selected.

5. Specify the following for the prompt that will display in the template. You can type over the word CATEGORY.

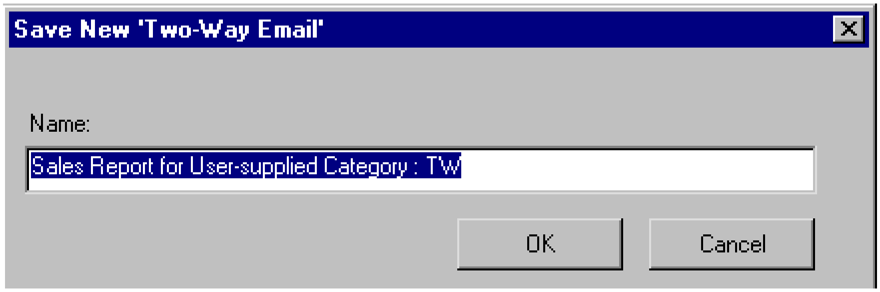
   Enter a product category on line 1 of your reply.

6. Click *Email Preview* to display the template as the user will see it.

   You can use RIM or Palm handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key and clicking *Email Preview*.

   Close the preview window when you are done. Click *OK* on the Two-Way Email window.

   The Save New 'Two-Way Email' window displays:



7. Accept the default name of the template by clicking *OK*. This name identifies the template in the WebFOCUS Explorer under the Standard Report.

Example Creating a Template With Multiple Parameters

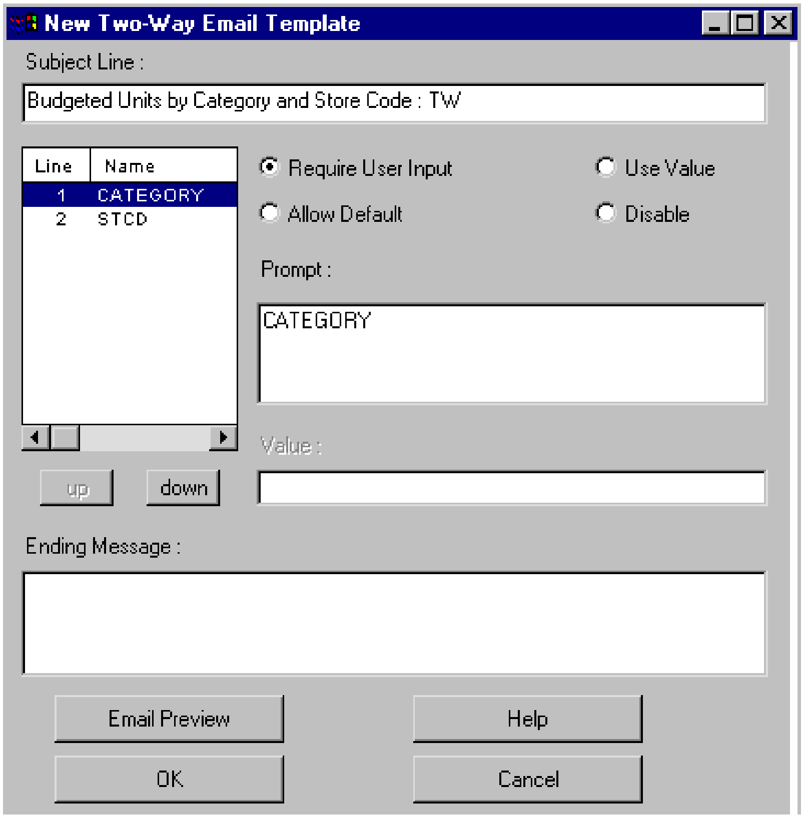
Suppose you want to create a Two-Way Email template using a Standard Report named Budgeted Units by Category and Store Code. It contains two parameters. For one parameter, CATEGORY, the user can supply a value or accept the default value provided by the Administrator. For the second parameter, STCD, the user must accept the value provided by the Administrator.

The Standard Report is:

```
TABLE FILE GGSALES
SUM BUDUNITS UNITS
BY CATEGORY
BY STCD
WHERE CATEGORY EQ '&CATEGORY'
WHERE STCD EQ '&STCD'
END
```

1. From the WebFOCUS Explorer, right-click the Standard Report named Budgeted Units by Category and Store Code, from which you will create the template.

   On the pop-up menu, click *New Two-Way Email*. The following window displays:



2. Use the default subject name of the template as displayed in the Subject Line field. This value displays as the subject of the email sent to the user.

3. The parameter CATEGORY is already highlighted, so you will define its properties first.

   Select *Allow Default*.

4. In the Value field, enter the default value, *Gifts*.

5. In the Prompt field, specify the following for the prompt that will display in the template. You can type over the word CATEGORY.

   Enter a product category on line 1 of your reply.

   Valid product categories are Coffee, Food, Gifts.

   You can accept the default, which is Gifts.

   To accept the default, enter a period (.) on line 1 of your reply.

6. Click the second parameter, STCD, to highlight it. You will now define its properties.

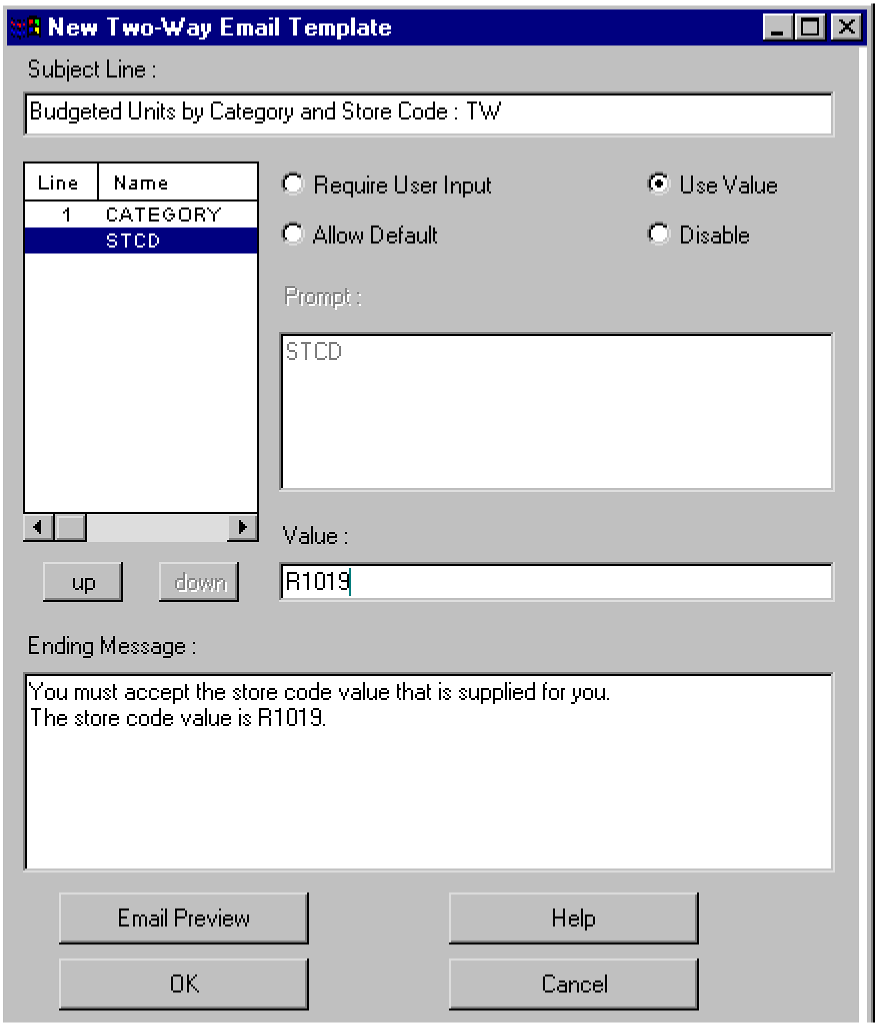
   Enter the following informative message for the user in the Ending Message field:

   You must accept the store code value that is supplied for you.

   The store code value is R1019.

7. Select *Use Value*.

8. In the Value field, enter the only valid value, *R1019*.



9. If a parameter has the property Use Value, you do not specify a prompt for it.

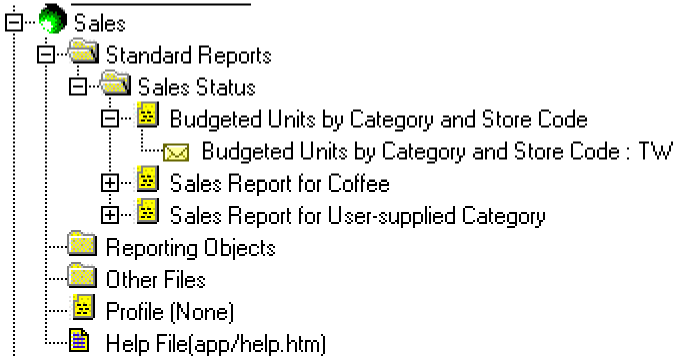
Click *Email Preview* to display the template as the user will see it.

You can use RIM or Palm handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key and clicking *Email Preview*.

Close the preview window when you are done. Click *OK* on the Two-Way Email window.

The Save New 'Two-Way Email' window displays.

10. Accept the default name of the template by clicking *OK*. This name identifies the template in the WebFOCUS Explorer under the Standard Report.



Maintaining a Template

As a Managed Reporting Administrator or Domain Administrator, you edit, rename, or delete an existing Two-Way Email template from the WebFOCUS Explorer.

If you edit a Standard Report associated with a Two-Way Email template and then open the template, a message describes the change.

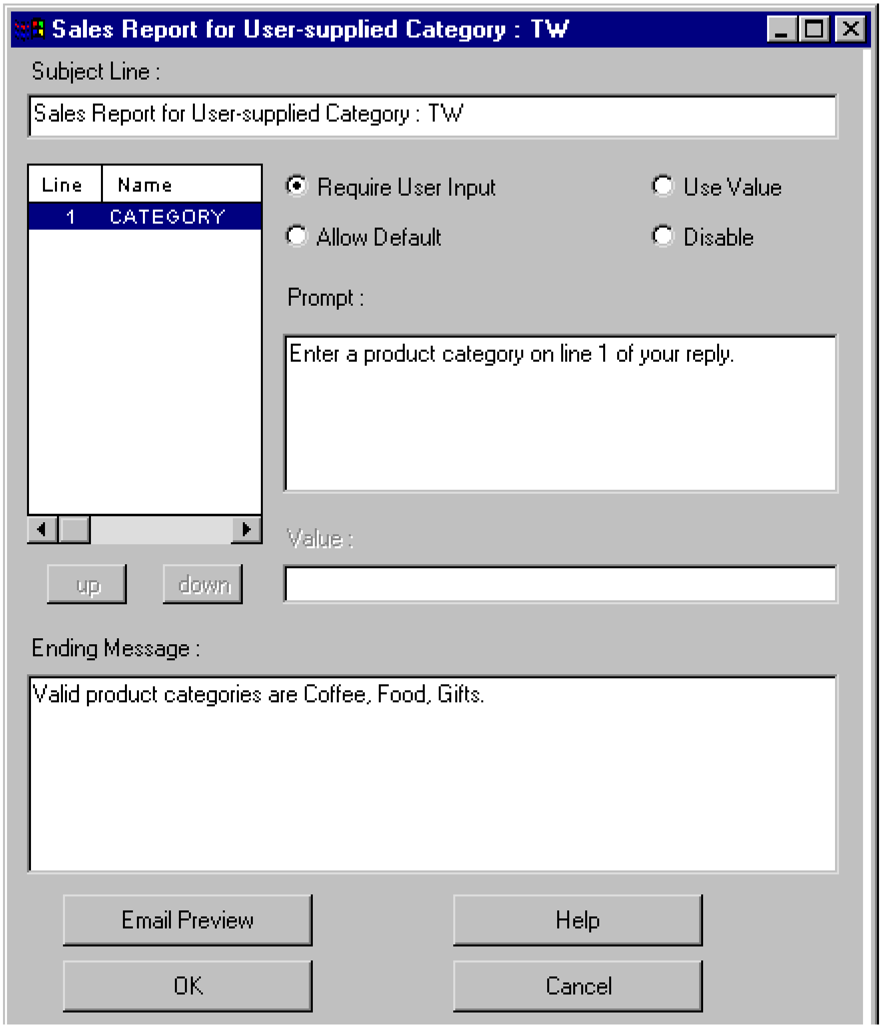
For example, if you remove a variable named CATEGORY from a Standard Report, you see the following when you open the template:

```
Variable 'CATEGORY' Has Been Deleted
```

Click *OK* to remove the message.

Procedure How to Edit a Template

1. From the WebFOCUS Explorer, right-click the Two-Way Email template you want to edit.
2. Click *Open*. A window like the following displays:



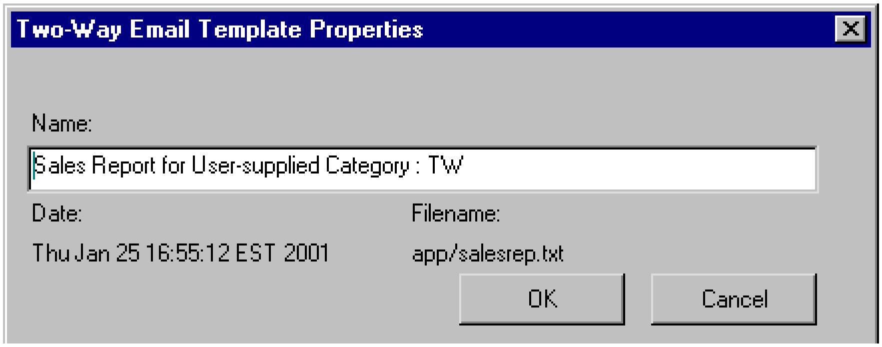
3. Make all necessary changes. Click *Email Preview* to make sure the template appears as desired.

   You can use RIM or Palm handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key and clicking *Email Preview*.

   Close the preview window when you are done. Click *OK* on the Two-Way Email window to save the changes.

Procedure How to Rename a Template

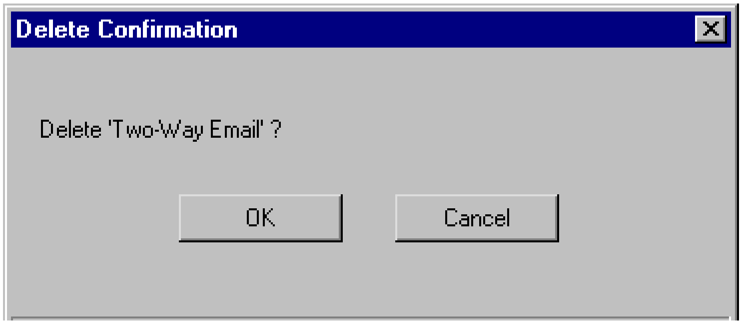
1. From the WebFOCUS Explorer, right-click the Two-Way Email template whose name you want to change.
2. On the pop-up menu, click *Properties*. A window like the following displays:



3. Change the name of the template in the Name field, and click *OK*.

Procedure How to Delete a Template

1. From the WebFOCUS Explorer, right-click the Two-Way Email template you want to delete.
2. On the pop-up menu, click *Delete*. The following window displays:



3. Click *OK* to delete the template.

Sending a Template to Users

As a Managed Reporting Administrator or Domain Administrator, you will periodically create new templates or modify existing ones. You can send a copy of a new or modified template to authorized users.

Procedure How to Send a Template to Users

1. From the WebFOCUS Explorer, right-click the new or modified template that you want to send.
2. On the pop-up menu, click *Resend Template*. Two-Way Email automatically sends a copy of the template to all users with authorized access to the associated Domain.

Attaching a Two-Way Email Template to an Alert

This feature is available only at sites that have licensed and installed both ReportCaster and Two-Way Email. Two-Way Email is only available with ReportCaster.

A Managed Reporting Administrator or Domain Administrator can attach a Two-Way Email template to a ReportCaster Alert. The user is alerted when certain pre-defined data conditions are met, and can use the attached template to respond to the alert to request a report for more detail, to redistribute a report or parts of it to other interested people, or to take other timely action.

For the procedure on attaching a Two-Way Email template to a ReportCaster Alert using the Alert Wizard, see Chapter 7, *ReportCaster Alerts Administration*.

The following example illustrates the basic steps required to attach a template to an alert. It assumes that you are familiar with the Alert Wizard and the creation of Two-Way Email templates. Alert response enables many event-critical activities other than the simple one illustrated here, including drill-down reporting or data source maintenance.

Example Attaching a Two-Way Email Template to an Alert

In this example, the user is alerted when the total coffee sales for store code R1019 exceed $1,000,000. You create this alert test in step 3.

The alert to the user takes the form of a report showing the exact amount of coffee sales for store code R1019. You create this alert event (report) in step 4.

Attached to the report is a template that prompts the user for another store code. You create this template in step 2.

The user enters the store code of interest for comparison purposes, and receives a second report showing the coffee sales for the supplied store code. You create the second report in step 1.

1. From the WebFOCUS Explorer, create a Standard Report named Coffee Sales for Competitive Store. This is the comparison report the user receives after replying to and sending the template attached to the alert.

2. This report displays the coffee sales for a store code supplied by the user, who wants to compare that figure to the coffee sales for store code R1019.

```
TABLE FILE GGSALES
SUM DOLLARS
BY CATEGORY
BY STCD
WHERE CATEGORY EQ 'Coffee'
WHERE STCD EQ '&STCD'
END
```

3. From the WebFOCUS Explorer, create a template from the preceding Standard Report. Use the instructions in *How to Create a Template With Parameters* on page 8-12. The template prompts the user for a store code.

   Do the following when creating the template:

   a. Accept the default subject name in the Subject Line field.

   b. Select *Require User Input*.

   c. In the Ending Message field, type:

   ```
   Valid store codes are R1088, R1109, R1250.
   ```

   d. In the Prompt field, type:

   ```
   Enter a store code on line 1 of your reply.
   ```

   Using the Alert Wizard, create an alert test as follows. An alert test defines the data condition that is monitored—in this example, when the total coffee sales for store code R1019 exceed $1,000,000.

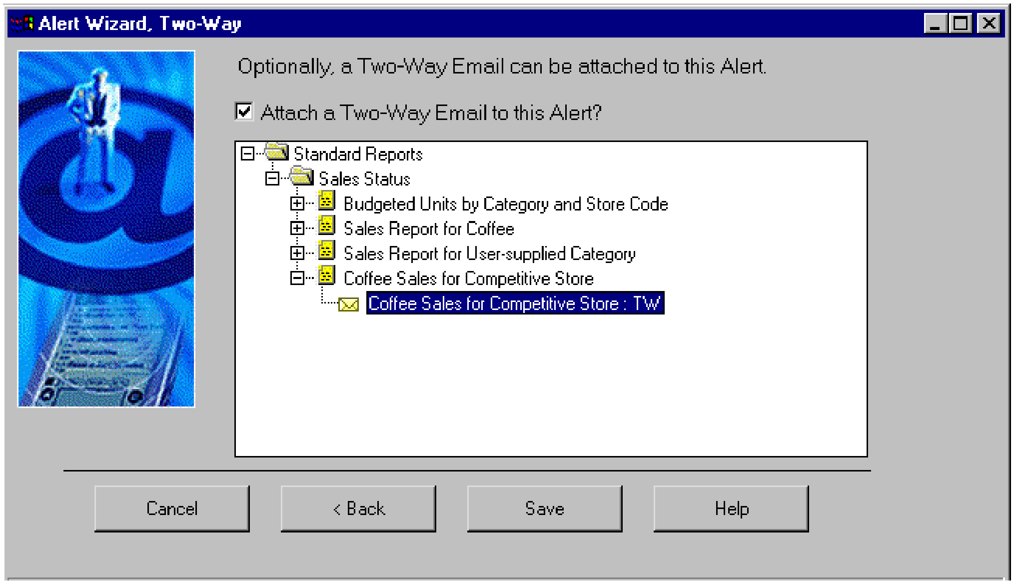
```
TABLE FILE GGSALES
SUM DOLLARS
BY CATEGORY
BY STCD
WHERE CATEGORY EQ 'Coffee'
WHERE STCD EQ 'R1019'
WHERE TOTAL DOLLARS GT 1000000
ON TABLE HOLD
END
```

4. Using the Alert Wizard, create an alert event as follows. An alert event is the report that is distributed if the alert test is true.

```
TABLE FILE GGSALES
SUM DOLLARS
BY CATEGORY
BY STCD
WHERE CATEGORY EQ 'Coffee'
WHERE STCD EQ 'R1019'
WHERE TOTAL DOLLARS GT 1000000
END
```

5. Using the Alert Wizard, select *Attach a Two-Way Email to this Alert*.

6. Select the template named Coffee Sales for Competitive Store: TW, as shown in the following window:



7. Using the Alert Wizard, name the new alert report Coffee Sales Alert. Schedule the alert for testing once a day.

8. For the Subject on the Distribution tab in the ReportCaster schedule, enter *Coffee Sales Alert*.

Accessing the Administrator Console

The Two-Way Email Administrator console enables the Managed Reporting Administrator to do the following:

- View MRE users currently subscribed to Two-Way Email, and their email addresses.
- Add a new subscriber or delete an existing one.
- Maintain a user's email address.
- Resend all templates to a user. This feature is called refreshing the templates.
- View the status of an executed job using the Job Log, and purge the Job Log.
- Monitor email traffic using the Event Log, and purge the Event Log.
- Check the status of an executing job or a queued job (one that is waiting to be sent to the WebFOCUS Report Server for execution). You can also cancel a queued job.

The console is a set of HTML pages accessed from the WebFOCUS Explorer.

Procedure How to Access the Console and View Current Subscribers

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu.

   Another way to access the Two-Way Email Administrator console is to highlight a domain, go to the File menu, and select Two-Way Email Administrator from the drop-down list.

2. The Two-Way Email Administrator console opens in a scrollable window.

   The console displays the following:

   - All MRE users currently subscribed to Two-Way Email, listed on the left under Two-Way Email subscribers.
   - All email addresses for a selected user, listed on the right under Addresses for subscriber.

   You can only select one user at a time from the left-hand list. However, you can select more than one address from the right-hand list when you are deleting multiple addresses, or selecting addresses for a refresh task.

Adding or Deleting a Subscriber

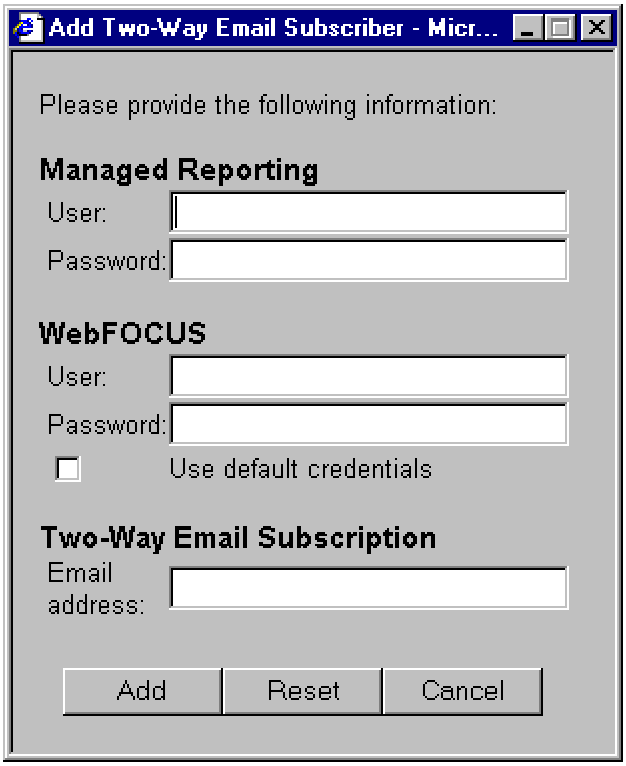
Use the Administrator console to add a new subscriber to the Two-Way Email database, or delete an existing subscriber from the database.

When a Managed Reporting Administrator adds a new subscriber using the Two-Way Email Administrator console, that subscriber receives a confirmation message from Two-Way Email, acknowledging the subscription request. The user must reply to the message. The subscription is activated once the confirmation process is complete.

See *Subscription and Confirmation Processing* on page 8-3 for more information on that procedure.

Procedure How to Add a New Subscriber

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu.
2. Click *Add user*. The following window displays:



3. Enter the MRE user ID and password.

4. Enter the WebFOCUS Reporting Server user ID and password. To use default values stored on the WebFOCUS Reporting Server, click *Use default credentials*.

5. Enter the user's email address in the field under Two-Way Email Subscription. Click *Add*. Two-Way Email will list the new user under Two-Way Email subscribers.

If the user already has a Two-Way Email account, you receive a message informing you that the subscription procedure failed for that reason.

If you make a typing error on the window, click *Reset* to clear the fields and start over.

Procedure How to Delete an Existing Subscriber

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu.

2. Select the name of the subscriber you want to delete from the list on the left, under Two-Way Email subscribers.

   Click *Delete user*. A window displays, with the name of the selected subscriber.

3. Click *Delete* to remove the subscriber from the Two-Way Email database.

Maintaining an Email Address

For any Two-Way Email user, you can:

- Add a new email address to the Two-Way Email database.
- Delete an existing email address from the Two-Way Email database. You can delete multiple addresses at one time.

When you add a new email address, the user receives a confirmation message at the new address from Two-Way Email and must reply to it. The new address is activated once the confirmation process is complete.

See *Subscription and Confirmation Processing* on page 8-3 for more information on that procedure.

Procedure How to Add a New Email Address

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Using the console, select the user from the list on the left, under Two-Way Email subscribers.

2. Click *Add Email*.

3. On the next dialog box, type the new email address in the field. Click *Add*.

Procedure How to Delete an Existing Email Address

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Using the console, select the user from the list on the left, under Two-Way Email subscribers.
2. Select the address, or addresses, you want to remove from the list on the right, under Addresses for subscriber.
3. Click *Delete Email*.
4. On the next dialog box, click *Delete*.

   If you delete the only email address associated with a user, the user's subscription to Two-Way Email (that is, the user's account) is cancelled. You have an opportunity to proceed with that action or discontinue the procedure.

Refreshing a User's Templates

You can resend a user's templates to a single email address, or to multiple addresses for that user.

Procedure How to Refresh a User's Templates

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Using the console, select the user from the list on the left, under Two-Way Email subscribers.
2. Select the address, or addresses, that the templates will be sent to, using the list on the right, under Addresses for subscriber.
3. Click *Refresh Templates*.
4. Click *OK* to resend the templates the subscriber is authorized to use.

Using the Job Log

Use the Job Log to view information about a job (Standard Report procedure) sent to the WebFOCUS Reporting Server for execution.

The Job Log is an HTML page that displays in a browser window.

Viewing the Status of an Executed Job

The Job Log displays information about the activities that occurred during the execution and distribution of a report. It enables you to confirm that a report was executed and distributed successfully. If a job does not conclude as expected, the Job Log states the reason why.

The following is a sample entry from a Job Log:

Job Description: [redacted]

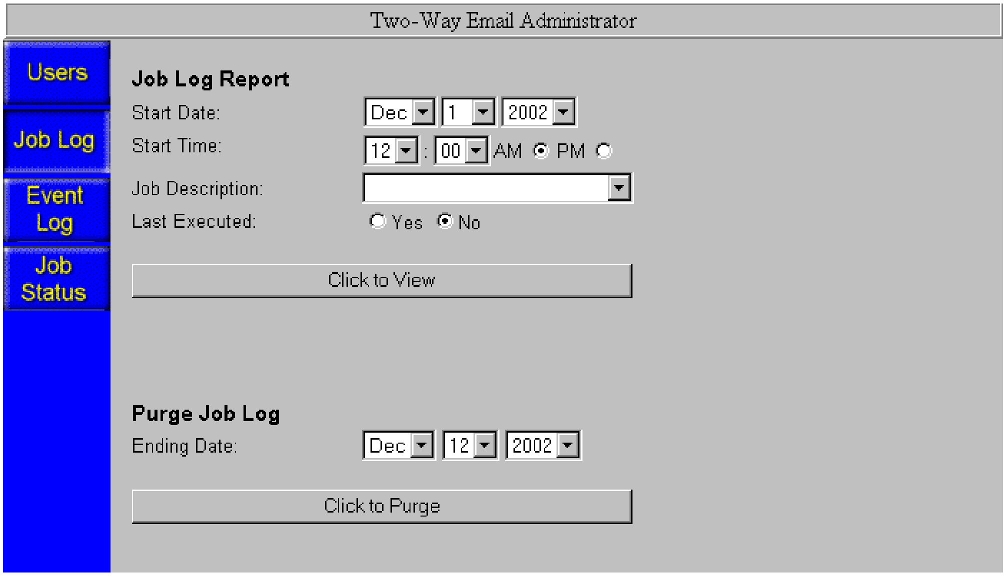
Server User:	admin	**(BTP1010)**	Starting worker thread
MRE User:	salesuse	**(BTP3080)**	Resolving Broker Server temporary space for BKRLOG service
Process:	P0sfo1so5r2	**(BTP3081)**	Temporary directory for BKRLOG process follows on next line
Job Name:	app/salesrep.txt	**(BTP3081)**	D:\ibi\srv435\wfs\edatemp\ts000001\
Start Time:	2001-01-08 15:34:58	**(BTY1010)**	Broker Request app/salesrep.txt Complete.
End Time:	2001-01-08 15:35:02	**(BTX000)**	(FOC43011) FILE hold.wp SUCCESSFULLY DISTRIBUTED

It includes the following:

- **Two-Way Email Job Description.** The name of the template associated with the job.
- **Server User.** The WebFOCUS Reporting Server user ID.
- **MRE User.** The MRE user ID.
- **Process.** A unique, system-generated key that identifies a specific execution of the template.
- **Job Name.** The name of the MRE Standard Report procedure, preceded by **app** and the delimiter /.
- **Start Time.** The date and time the job started running.
- **End Time.** The date and time the job finished running.
- **Messages.** Details on the activities that took place during job execution and distribution.

Procedure How to View the Status of an Executed Job

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Click the Job Log tab on the left to display a window like the following:



2. Apply selection criteria to define the information that will be retrieved:
3. Use the drop-down lists for Start Date and Start Time to specify the beginning of the timeframe that you are interested in. Information on all jobs run from that date and time up to the current date and time will be retrieved.
   - Type the name of a specific Two-Way Email template in the Job Description field. Information only for the jobs associated with that template during the specified timeframe will be retrieved.
   - Select *Yes* for Last Executed. Information only for the most recently executed job associated with the template (Job Description) during the specified timeframe will be retrieved.
4. Click *Click to View* to display the Job Log report.

Purging the Job Log

Because the Job Log accumulates information and can become difficult to navigate, it is a good idea to periodically purge it to conserve space.

You can control automatic purging of the Job Log at predefined intervals of time. Edit the parameter LOG_PURGE_PERIOD in the schedule section of the Distribution Server's bkrsched.cfg file.

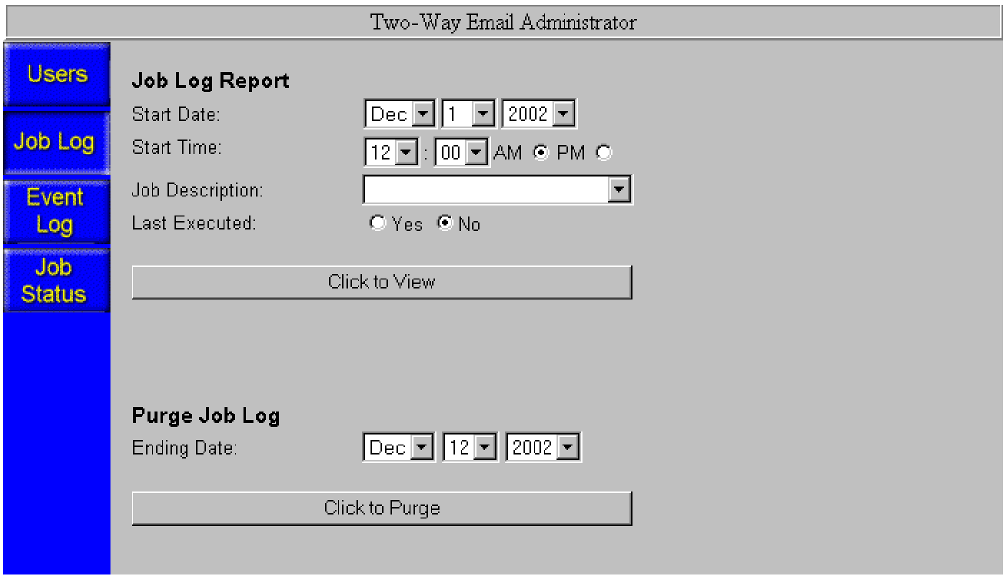
For example, to automatically purge Job Log reports every two days, enter:

```
LOG_PURGE_PERIOD 2
```

This parameter applies to the Two-Way Email Job Log and the ReportCaster Job Log. For more information on bkrsched.cfg, see the *WebFOCUS ReportCaster Administrator's Manual*.

Procedure How to Purge the Job Log

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Click the Job Log tab on the left to display a window like the following:



2. Using the drop-down lists for Ending Date, specify a date through which the Job Log will be purged.

3. Click *Click to Purge*. Respond to the confirmation message on the next dialog box. Two-Way Email will delete all reports from the beginning of the Job Log through the specified ending date.

4. Using the Event Log

Use the Event Log to monitor the status of a Two-Way Email request as it is received, assessed for security, sent to the WebFOCUS Reporting Server for execution, and distributed as a report.

The Event Log is an HTML page that displays in a browser window.

You can customize the content of the Event Log. Edit the parameter EVENTLOG in the Two-Way Email section of the Distribution Server's bkrsched.cfg file as follows.

Setting	**Description**
EVENTLOG OFF	Turns off the Event Log. Nothing is displayed.
EVENTLOG ERROR	Displays only errors.
EVENTLOG ON	Displays all events.

Monitoring Email Traffic

The following are sample entries from an Event Log that displays only errors.

Event Log Report

Time	Server User	MRE User	Email Address
2001-01-04 13:01:29.0		mobileuser	
	The specified MRE user is not a valid user.Unable to log on to MRE. MREUSER or MREPASS incorrect.		
2001-01-04 13:01:47.0		admin	
	The specified MRE user is not a valid user.Unable to log on to MRE. MREUSER or MREPASS incorrect.		
2001-01-04 13:02:47.0		admin	
	The specified MRE user is not a valid user.Unable to log on to MRE. MREUSER or MREPASS incorrect.		
2001-01-04 13:02:55.0		admin	
	The specified MRE user is not a valid user.Unable to log on to MRE. MREUSER or MREPASS incorrect.		

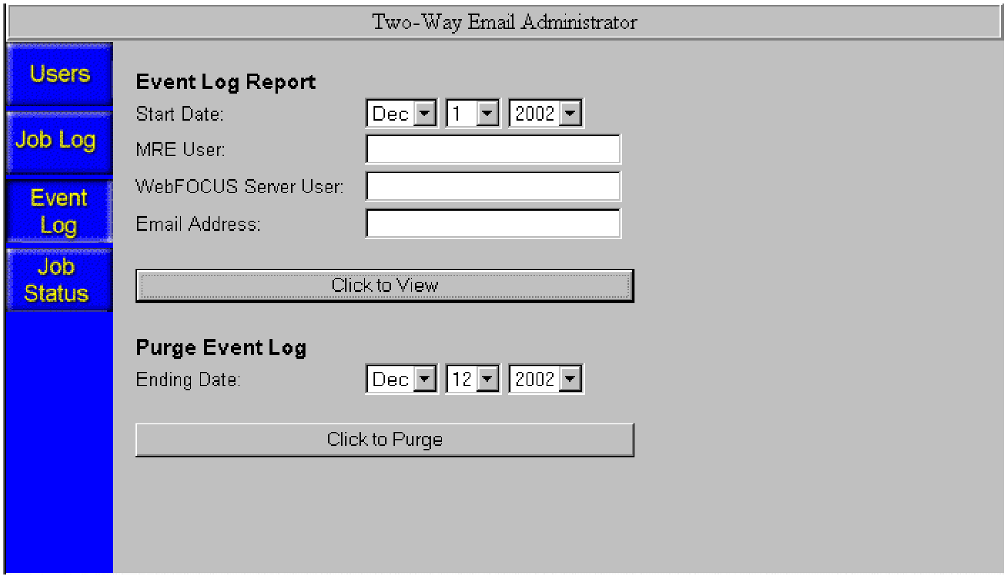
Each entry includes the following:

- Time. The date and time the event occurred.
- Server User. The WebFOCUS Reporting Server user ID.
- MRE User. The MRE user ID.

- Email Address. The user's email address.
- Message. Description of the error that occurred.

Procedure How to Monitor Email Traffic

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Click the Event Log tag on the left to display a window like the following:



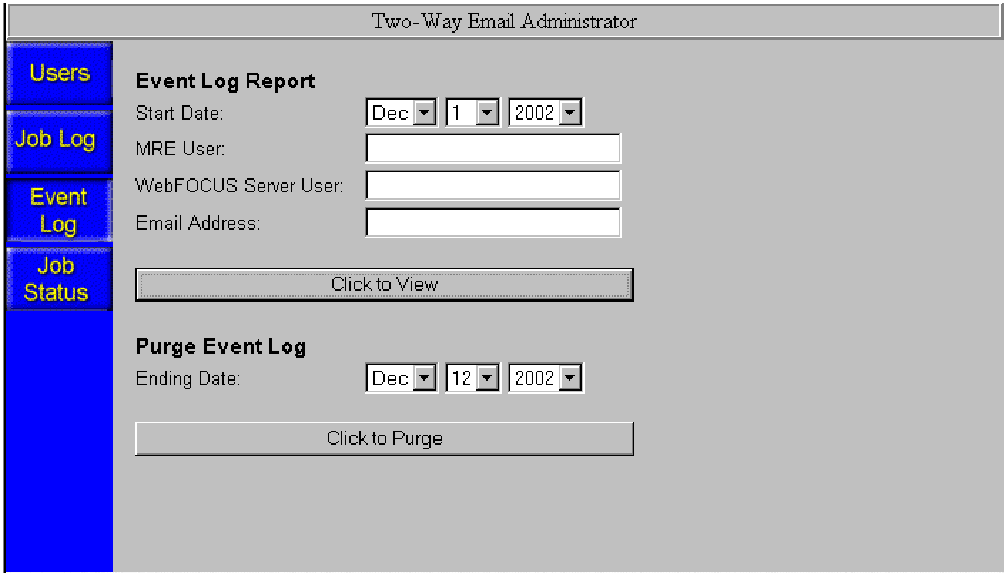
2. Apply selection criteria to define the information that will be retrieved:
   - Use the drop-down lists for Start Date to specify the beginning of the timeframe that you are interested in. Information on all events that occurred from that date up to the current date will be retrieved.
   - Type an MRE user ID in the MRE User field. Information only for the events associated with that user ID during the specified timeframe will be retrieved.
   - Type a WebFOCUS Reporting Server user ID in the WebFOCUS User field. Information only for the events associated with the supplied MRE user ID and WebFOCUS Reporting Server user ID during the specified timeframe will be retrieved.
   - Type an email address in the Email Address field. Information only for the events associated with the supplied IDs and address during the specified timeframe will be retrieved.
3. Click *Click to View* to display the Event Log report.

Procedure How to Purge the Event Log

Because the Event Log accumulates information and can become difficult to navigate, it is a good idea to periodically purge it to conserve space.

Note: The *Click to Purge* button is currently not working but will be fixed in future releases.

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Click the Event Log tab on the left to display a window like the following:



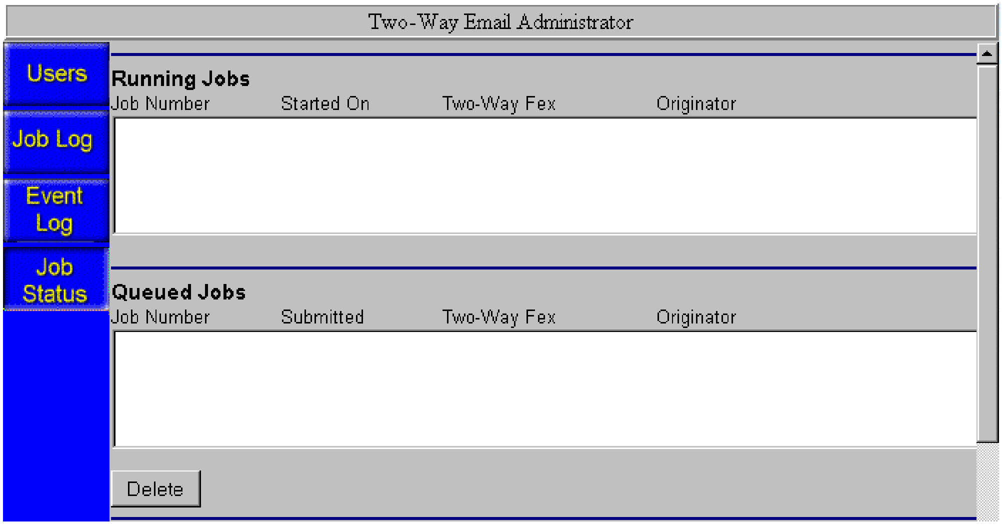
2. Using the drop-down lists for Ending Date, specify a date through which the Event Log will be purged.
3. Click *Click to Purge*. Respond to the confirmation message on the next dialog box. Two-Way Email will delete all reports from the beginning of the Event Log through the specified ending date.

Checking the Status of a Job or Canceling a Job

You can check the status of an executing job or one that is waiting to be sent to the WebFOCUS Report Server for execution (a queued job). You can also cancel a queued job.

Procedure How to Check the Status of a Job

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Click the Job Status tag on the left to display a scrollable window like the following:



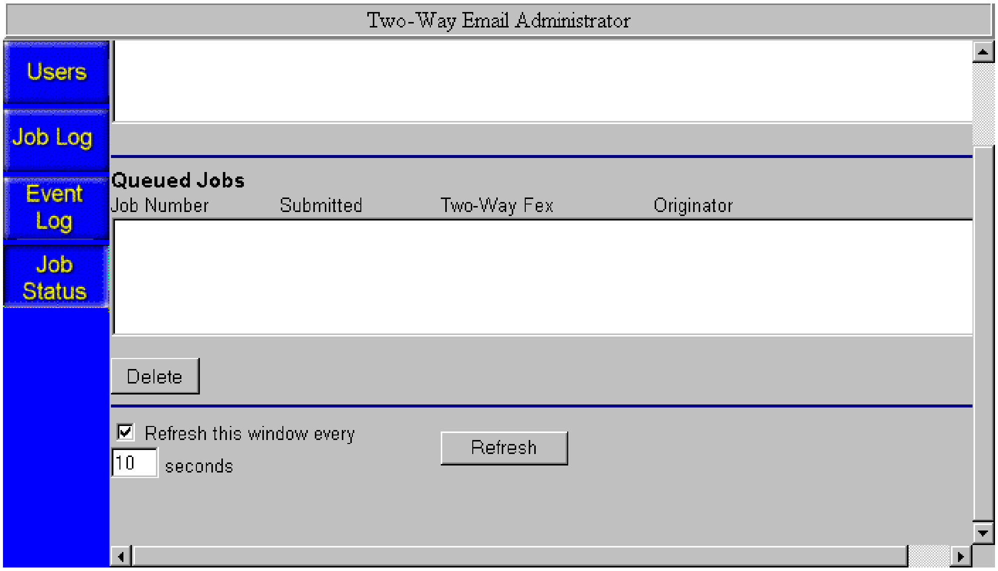
Jobs currently running on the WebFOCUS Reporting Server are displayed at the top of the window, under Running Jobs.

Jobs waiting to be sent to the WebFOCUS Reporting Server for execution are displayed near the bottom of the window, under Queued Jobs.

The following information identifies a job:

- **Job Number.** The unique, system-generated key for a specific execution of a report.
- **Started On** (under Running Jobs). The date and time the job started running on the WebFOCUS Reporting Server.
- **Submitted** (under Queued Jobs). The date and time the job was submitted to the WebFOCUS Reporting Server for execution.
- **Two-Way Fex.** The name of the procedure for the MRE Standard Report.
- **Originator.** The email address from which the request originated.

2. The option Refresh this window every n seconds is checked by default, retrieving the latest information after the specified interval of time. You can accept the default interval of 10, or supply the interval in seconds. Click *Refresh* to immediately retrieve the latest information.



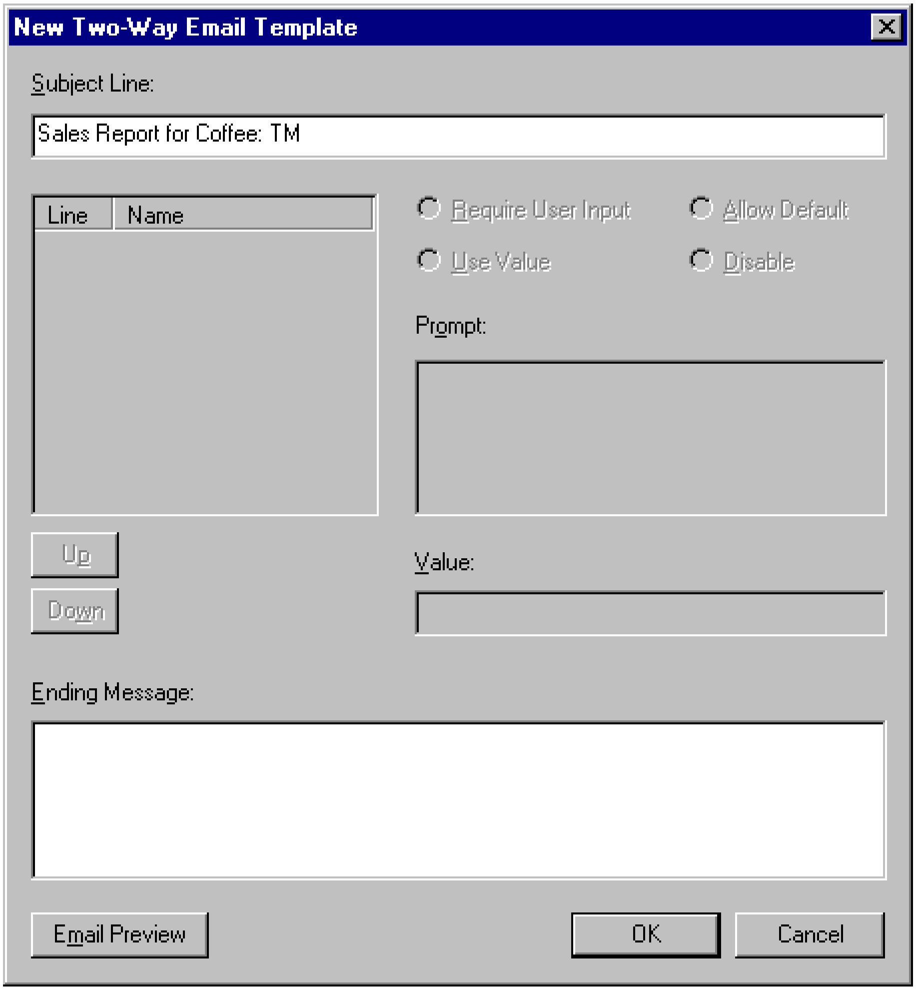
Procedure **How to Cancel a Queued Job**

1. From the WebFOCUS Explorer, right-click a domain and select *Two-Way Email Administrator* from the context menu. Click the Job Status tag on the left.

2. Select one or more jobs from the list under Queued Jobs. Click *Delete* to cancel execution.

Reference New Two-Way Email Template

The New Two-Way Email Template dialog box contains the following fields/options:



Subject Line

Identifies the default subject of the template. When you accept the default subject of the template, this value displays as the subject of the email sent to the user.

Line/Name

Displays parameter names and their line number location. Clicking one of the parameter property radio buttons (Allow Default, Require User Input, Use Value, Disable) enables you to define properties in the Prompt field.

Specify one of the following properties for each parameter:

Require User Input

Prompts the user to supply a value for the parameter when the user must supply a value for the parameter.

Allow Default

Allows the user to use the default value instead of supplying a value for the parameter. Click the *Allow Default* radio button and enter the default value in the Value field.

To accept a default value when requesting a report, the user must enter a period on the line corresponding to the parameter. A period is required to ensure that Two-Way Email reads the line.

Use Value

Supply the value, which the user cannot change. Enter the required value in the Value field. You do not have to specify a prompt for parameters with a Use Value property.

Disable

Does not prompt for a parameter value on the Two-Way Email template. Specify this option only when the parameter is already set on the WebFOCUS Reporting Server in a profile or stored procedure.

Prompt

Type the applicable prompt in the Prompt field after you specify a parameter property for the user. Click the appropriate parameter property radio button (Allow Default, Require User Input, Use Value, Disable) to specify parameters for the user.

If multiple parameter values are required, indicate the line number on which each value should be supplied.

If a parameter has the property Allow Default, instruct the user to enter a period (.) on the appropriate line to accept the default value.

You do not have to specify a prompt for parameters with a Use Value property.

Value

After you specify the Use Value parameter property for the user, enter the only valid value in the Value field.

Ending Message

Allows the user to enter a description of the template, which displays in the body of the template.

Email Preview

Displays the email template as the user will see it.

You can use RIM or Palm handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key when you click *Email Preview*.

Close the preview window when you are done. Click *OK* on the Two-Way Email window.

The Save New 'Two-Way Email' window displays.

Two-Way Email uses the subject of the template as the default name. This name identifies the template in the WebFOCUS Explorer under the Standard Report.

Reference Two-Way Email Preview

The Two-Way Email Preview dialog box displays after you click *Email Preview* in the New Two-Way Email Template dialog box.

This panel displays the email template as the user will see it.

You can use RIM or Palm handheld emulation to preview the template. Toggle between the two emulators by holding down the Shift key when you click *Email Preview*.

Close the preview window when you are done. Click OK on the Two-Way Email window.

The Save New 'Two-Way Email' window displays.

Two-Way Email uses the subject of the template as the default name. This name identifies the template in the WebFOCUS Explorer under the Standard Report.

CHAPTER 9

PDA Sync Administration

Topics:

- Setting Up a Standard Report for Sync
- Creating a Channel from the Managed Reporting Repository
- Setting Up a Managed Reporting User for PDA Sync
- Subscribing to a Channel

Palm OS® and Pocket PC mobile users can receive WebFOCUS Managed Reporting-based Standard Reports using the PDA Sync report property. Once this property is selected, Managed Reporting users who have been granted PDA Sync access can sync with WebFOCUS to receive selected Standard Reports on their mobile devices.

The Administrator functions necessary for automating this process include setting up Standard Reports and users for sync access, and creating report channels from the Managed Reporting Repository.

Setting Up a Standard Report for Sync

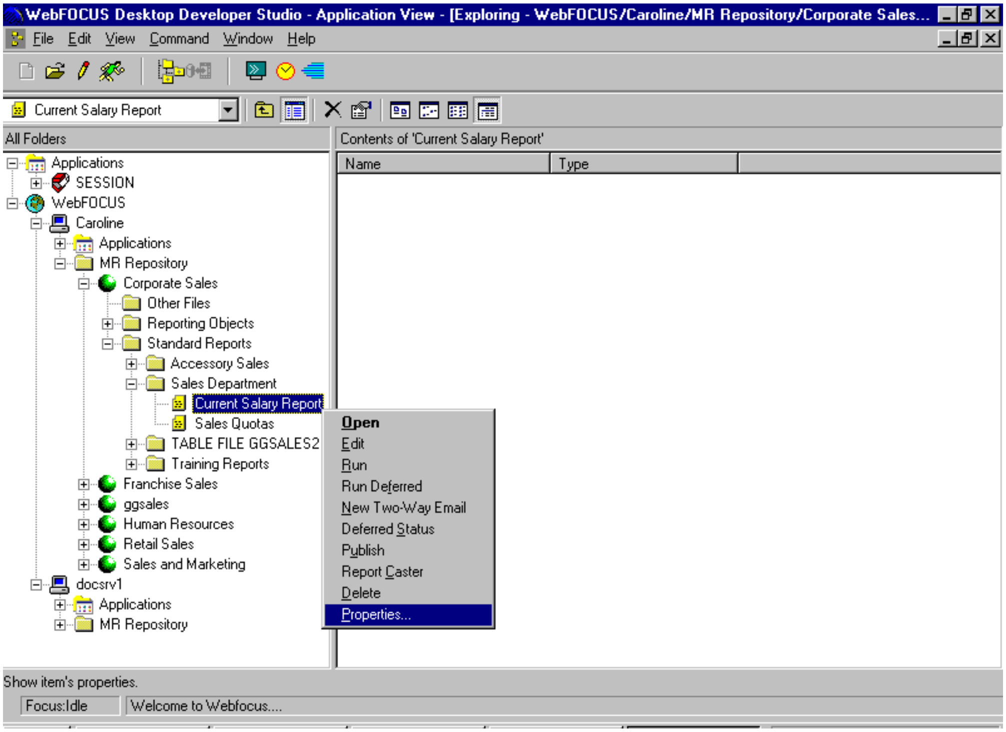
As the Managed Reporting Administrator, you can enable Managed Reporting-based Standard Reports for AvantGo via a publish-and-subscribe approach. AvantGo supports HTML reports, text reports, and GIF-based graphs only.

For more information about AvantGo, see the *WebFOCUS Technology Guide*.

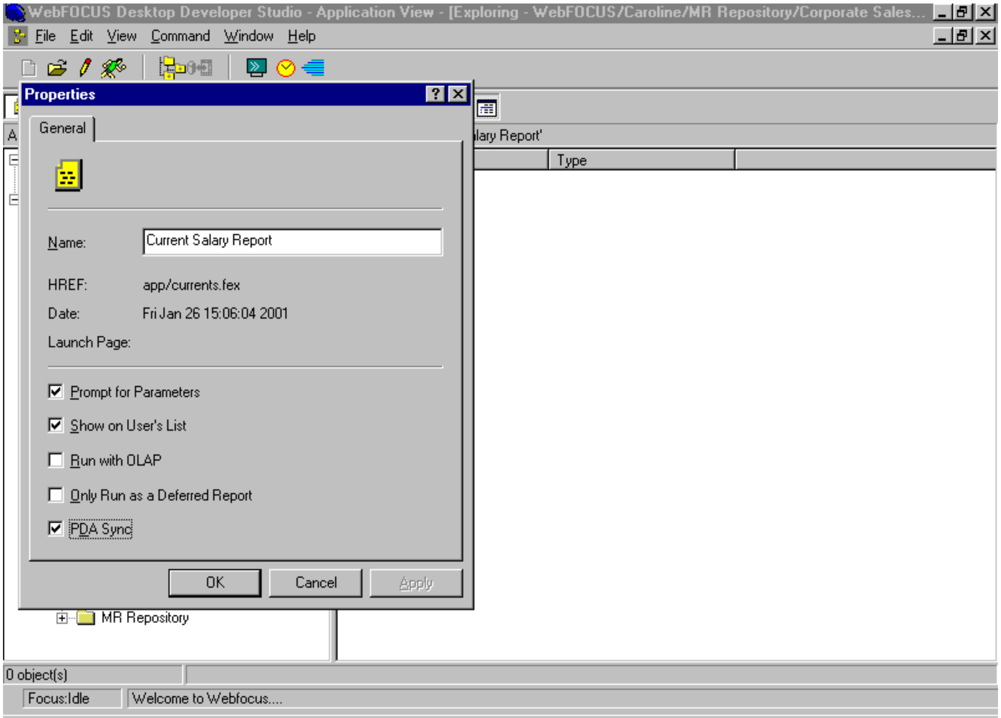
Procedure How to Publish a Standard Report for Sync

In the Developer Studio - Application view, an Administrator publishes a Standard Report as follows:

1. Highlight the Standard Report you wish to make available for sync (for example, Current Salary Report) and right-click that report. The following menu displays:



2. Select *Properties*. The Standard Reports Properties dialog box displays:



3. Select the *PDA Sync* property and click *OK*.

Once the PDA Sync property is selected, the Standard Report is considered published for PDA Sync and is part of the syncable channel for mobile reports.

Note: You must set the PDA Sync property for each Standard Report you want to make available for sync.

PDA Sync and OLAP

The PDA Sync option supports immediately run Standard Reports and Deferred Standard Reports (since these return HTML). However, it cannot support OLAP reports since they return HTML with JavaScript and references to Java applets.

If a user syncs a report that has Run with OLAP checked, the report is synced to the PDA as a normal file. In other words, OLAP is disabled.

Syncing Deferred Reports

As a Managed Reporting Administrator, you can configure Deferred Reports to sync with a PDA by selecting both the Only run as a Deferred Report and PDA Sync properties for that Standard Report.

Subsequently, every time you sync a report over AvantGo, the report is submitted for processing. A sync operation runs every single report, every time, based on the frequency option set up for the AvantGo Channel.

However, users may not want Deferred Reports to be submitted for processing every time. These tend to be the longest running reports, and sync operations would take a long time to run these reports. To resolve this potential problem, the CGI returns a Web form page that allows the user to request the Deferred Report as follows:

If the user clicks *Defer*, the form is submitted and stored in the AvantGo Forms Manager until the next sync, at which time the report is submitted for deferred processing. On the next sync, if the report has finished processing it is downloaded for viewing in the AvantGo browser, which displays the Web content on the PDA.

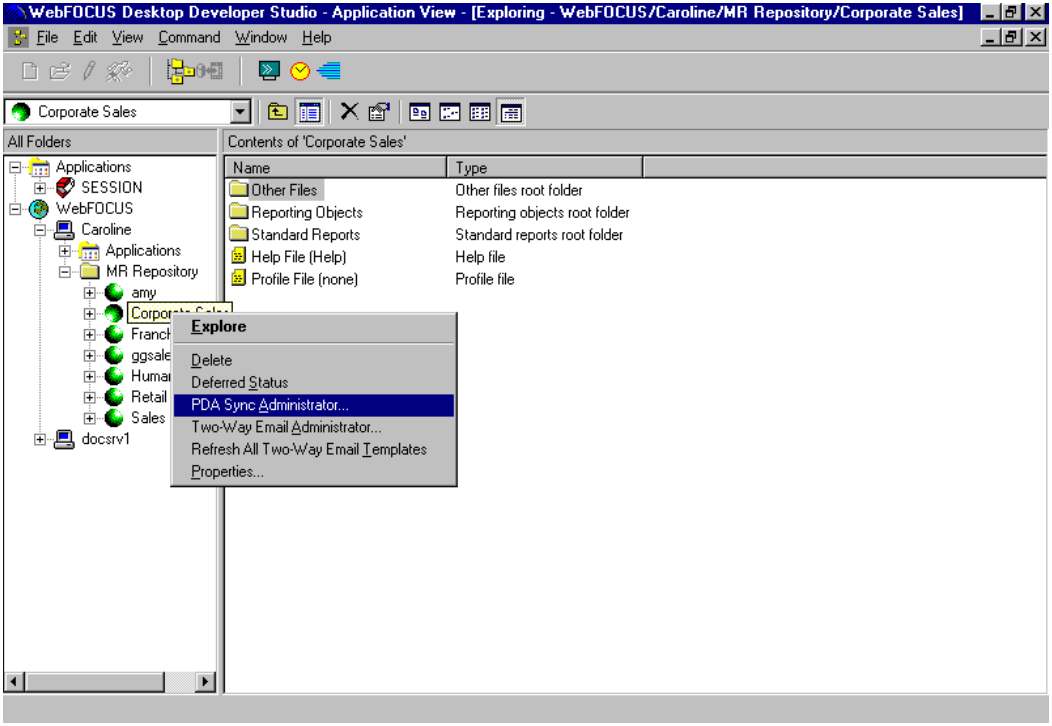
Creating a Channel from the Managed Reporting Repository

To turn the current Managed Reporting Repository into an AvantGo channel, you use a tab called PDA Sync**,** which can be accessed from the main (yellow) toolbar. This opens the AvantGo Administrator panel, which contains properties that control how the Repository is exported to an AvantGo channel.

Note: These panels are HTML-based, with client-side JavaScript for validation and GUI support as needed.

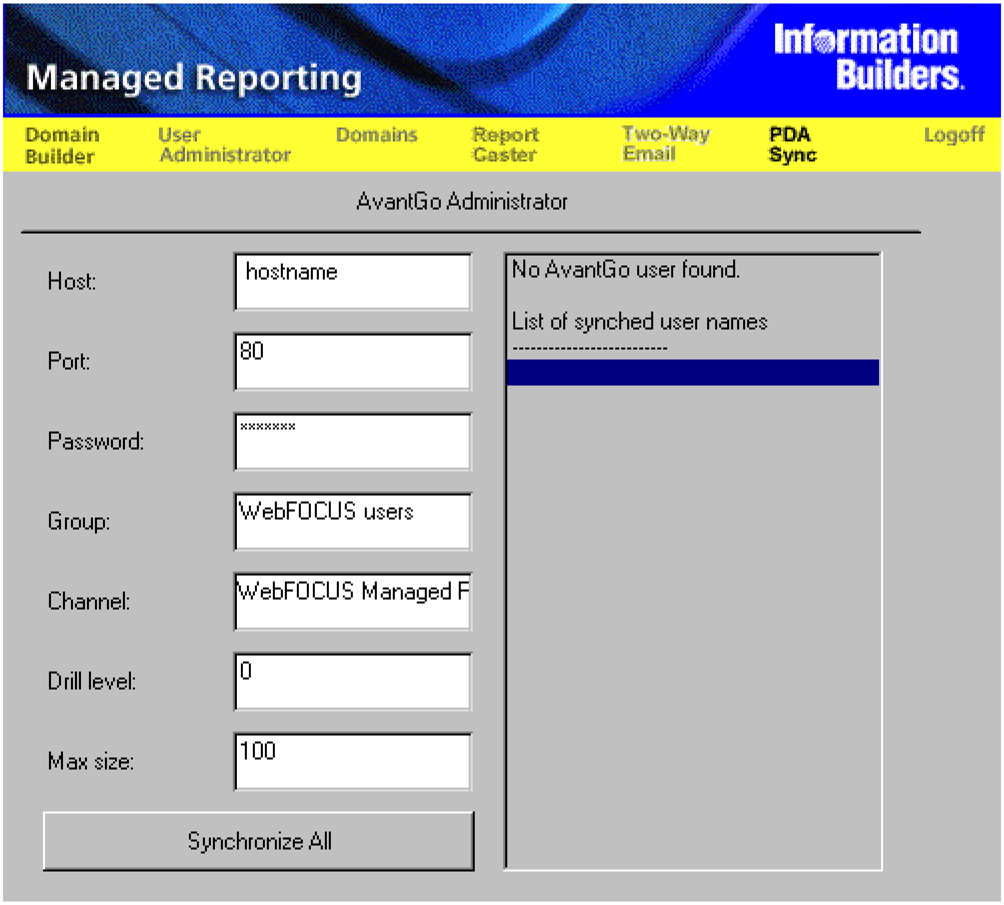
The AvantGo Administrator Panel

From the WebFOCUS Explorer, access the AvantGo Administrator panel by right-clicking a domain and selecting PDA Sync Administrator from the context menu.



Tip: Another way to access the PDA Sync Administrator console is to highlight a domain, go to the File menu, and select PDA Sync Administrator from the drop-down list.

The AvantGo Administrator panel displays:



The AvantGo Administrator panel controls how WebFOCUS Managed Reporting locates and logs on to the AvantGo Enterprise Server. It creates AvantGo groups and channels on the AvantGo Enterprise Server, and the properties for all AvantGo optioned users. The AvantGo Administrator panel automates AvantGo setup for you.

Reference AvantGo Administrator Panel Properties

The AvantGo Administrator panel properties are as follows:

Properties	Description	Default value (pre-filled, first time only)
Host	The Web domain used to send commands to the AvantGo CGI on the AvantGo Enterprise Server. **Note:** This should be the domain only, not http:// or the port number.	[blank]
Port	The port on the server where the AvantGo CGI listens for HTTP requests.	80
Password	The AvantGo Administrator's password.	[blank]
Group	The name of the Group on the AvantGo Enterprise Server to which the Repository channel will be added. All AvantGo users configured by WebFOCUS belong to this group.	WebFOCUS users
Channel	The name that will be used for the channel on the AvantGo Enterprise Server.	WebFOCUS Managed Reporting
Drill level	The number of levels of report drill-down the channel will perform.	2
Max size	Depending on the amount of content Managed Reporting contains, you might be able to leave this setting at the default of 100K or you might need to make it larger. **Note:** The AvantGo sync server and client compresses the HTML content. Even though the content that is synced can use up the full amount of space, you are actually getting more space in terms of real HTML page size.	100 (KB)

Reference Updating an AvantGo Channel

To update AvantGo and refresh the contents of WebFOCUS Managed Reporting configuration files, click the *Synchronize All* button on the AvantGo Administrator panel. The WebFOCUS CGI checks these files before trying to access the AvantGo Enterprise Server to perform maintenance functions.

When you click *Synchronize All on the PDA Sync panel*, the following occurs:

1. The WebFOCUS CGI logs onto the AvantGo Enterprise Server and issues a query to see if a group with the name specified already exists. If it exists, it uses that group. If it does not exist, the CGI sends a command to create the group.
2. The WebFOCUS CGI queries the AvantGo Enterprise Server to see if the specified channel already exists. If it does exist, the channel's properties are updated from the contents of this panel. If it does not exist, the CGI sends a command to create it using the properties of this panel.

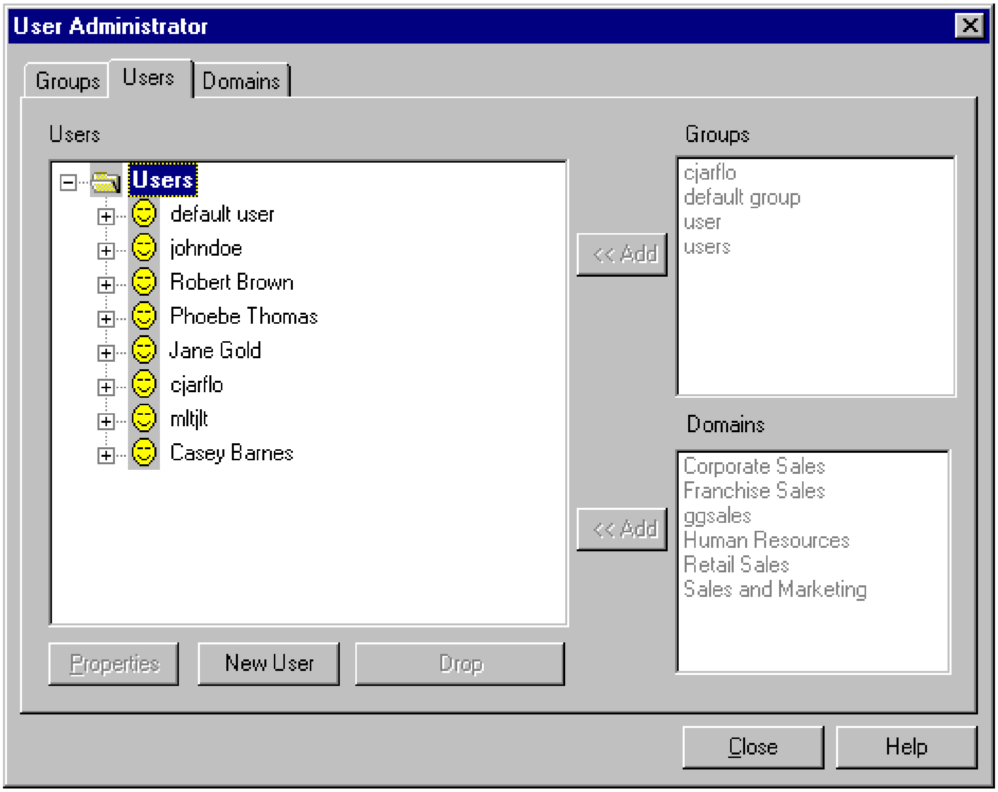
Setting Up a Managed Reporting User for PDA Sync

Each user licensed for PDA Sync needs to be enabled for this feature in the Managed Reporting User Administration panel, as described in *How to Set Up a Managed Reporting User for PDA Sync* on page 9-8.

Procedure How to Set Up a Managed Reporting User for PDA Sync

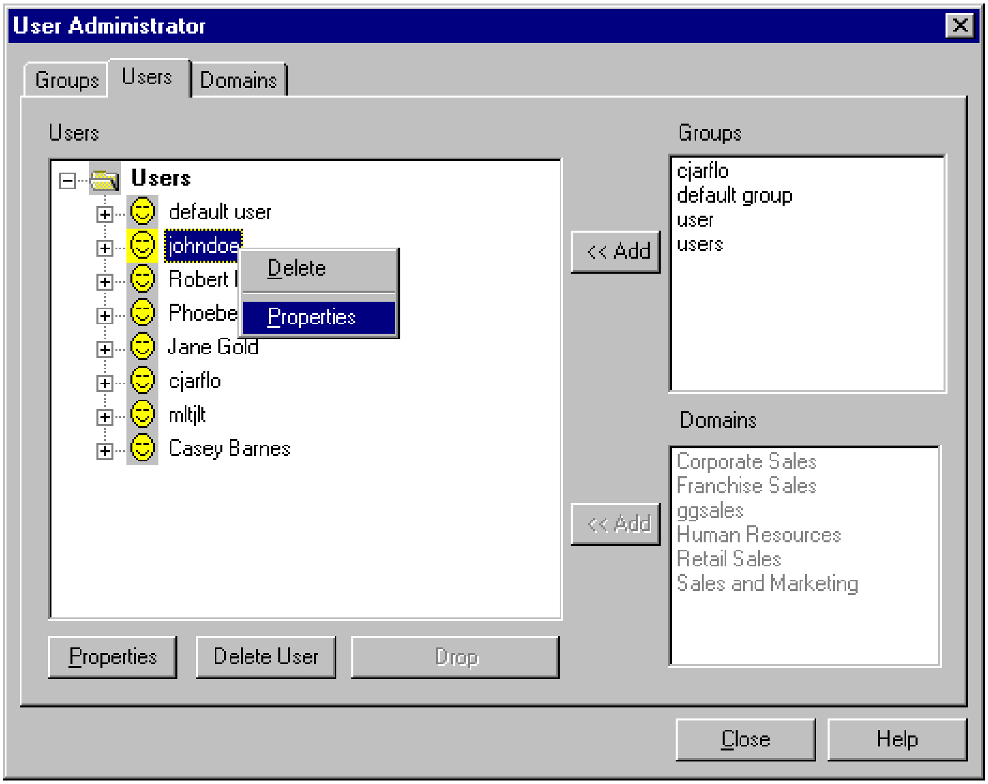
1. In Developer Studio - Application view, select *Command* on the main menu. From the drop-down list that displays, click *User Administrator*.

2. The User Administrator panel displays:



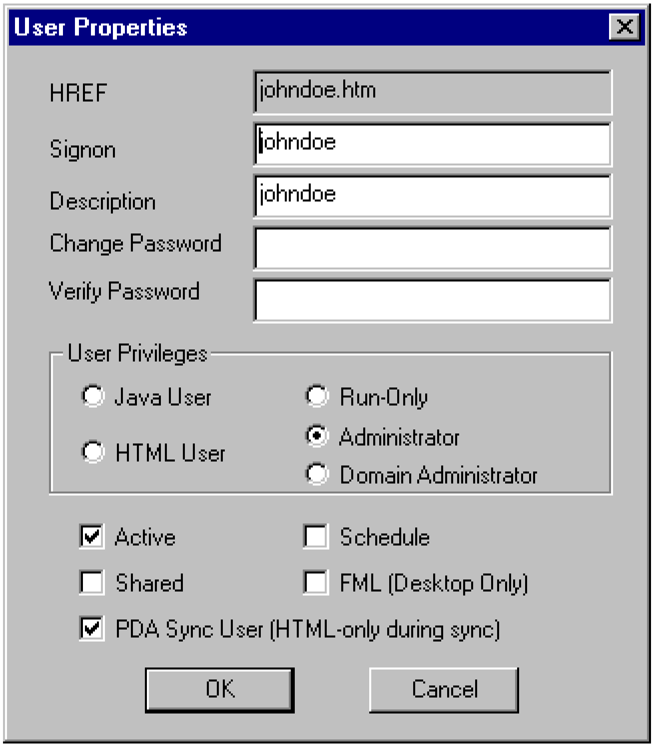
Click the Users tab.

3. Select the user you wish to enable for sync (for example, johndoe).



4. Right-click and select *Properties*.

5. The User Properties dialog box displays:



6. Select the *PDA Sync User (HTML-only during sync) property* and click *OK*.

Note: This property is used for adding or updating Managed Reporting users on the AvantGo Enterprise Server.

Subscribing to a Channel

Once you have published a channel, mobile users must subscribe to that channel in order to receive any data. Users automatically receive subscriptions that you have created when they sync their PDAs. They must log on to that channel with the user IDs and passwords for AvantGo that you have set up from Managed Reporting.

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